

# RAILWAY AGE

THE STANDARD RAILROAD WEEKLY FOR ALMOST A CENTURY

## FREIGHT TRAFFIC ISSUE



MARCH 5, 1951

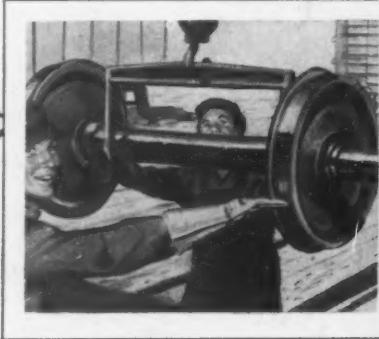
### Just picture how "Roller Freight" could cut your operating costs . . . all along the line!



AT TERMINALS 90% fewer man-hours are needed for terminal inspection when freight trains are mounted on Timken® tapered roller bearings!



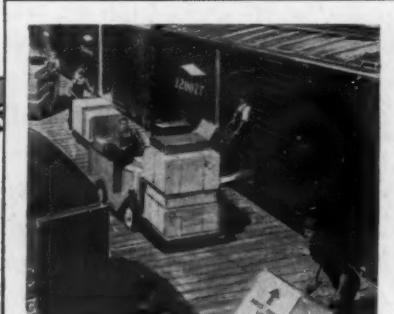
IN THE YARDS "Roller Freight" makes more cars available because cars get where they're going faster and spend less time in repair shops.



IN THE SHOP Timken bearings cut repair bills by reducing wear on draft gear and other parts. Impact damage from "serial starting" jolts can be eliminated.



ON THE ROAD Timken bearings practically eliminate "hot boxes" and the expenses and delays that go with them. Roller bearing design minimizes friction.



AT DESTINATIONS "Roller Freight" reduces damage claims by making smoother starts and stops possible. Timken bearings cut starting resistance 88%.

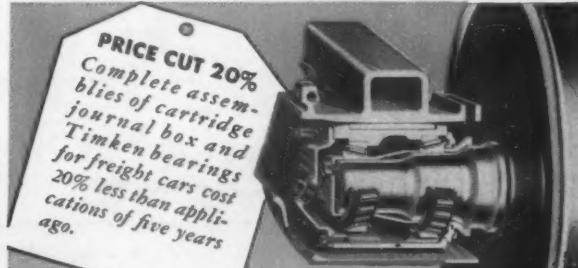


ANYWHERE Timken bearings reduce starting friction to a minimum. You can schedule full-length trains even in cold weather.

**AN EDGE ON COMPETITION!** "Roller Freight" will do more than cut operating costs. It will give you a powerful advantage with shippers in going after a bigger share of

tomorrow's freight tonnage. The Timken Roller Bearing Company, Canton 6, Ohio. Canadian plant: St. Thomas, Ontario. Cable address: "TIMROSCO".

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ROLLER  
BEARINGS



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what makes  
the wheels go 'round  
in free interchange?

Their easy maintenance, maximum economy, and dependable performance have made **SOLID JOURNAL BEARINGS** the Railroads' choice as the bearing standard . . .

More Service-Proved FACTS about  
Solid Journal Bearings

**Unmatched Performance**—with as high as 6 1/2 million bearing miles per car setout.

**Easiest to Maintain**—replacement takes minutes, without need for skilled labor.

**Simple in Design**—the only answer to unrestricted interchange.

**Lowest Cost**—save over 25% on car cost; average only \$20.00 per car set in replacement.

**Most Liberal Tolerances**—axles can be used and re-used with simple roller burnishing.

**Lowest Running Friction**—a single film of oil permits faster acceleration, lower running resistance—particularly at low temperatures.

**Lightest Weight**—up to 60% less dead weight than any other type of bearing.



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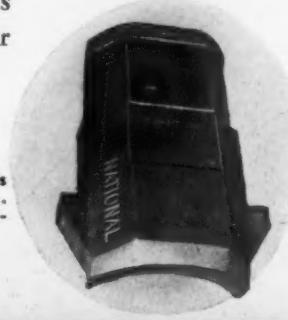
As we all know, free interchange is what makes the economical handling of American freight possible. When as high as 8 out of 10 cars in a train belong to other roads than the operating road, there had to be a practical journal bearing answer that would facilitate free interchange.

Time has proved the wisdom of the railroads' decision to standardize on solid journal bearings . . . simple in design, easy to maintain and inspect, performing dependably under extremes of operating conditions.

A lot of resources have gone, and continue to go into making solid bearings that deliver as high as 6 1/2 million bearing miles per set-out!



From coast to coast it's  
the **SOLID BEARING** . . .  
for dependable, eco-  
nomical service.



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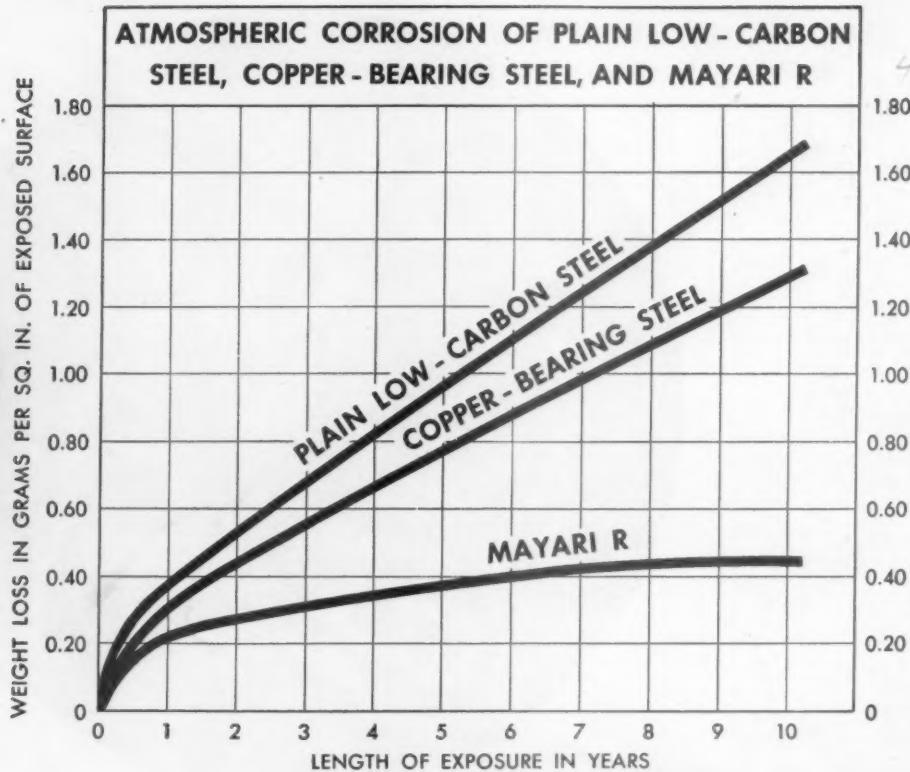
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TF1  
R2

# 10 YEAR TEST



## shows how **MAYARI R** resists atmospheric corrosion

The curves plotted on this chart show the weight losses, due to atmospheric corrosion, of plain low-carbon steel, copper-bearing steel, and Mayari R. These three types of steel were exposed for a 10-year period, under exactly the same conditions, in a highly corrosive industrial atmosphere.

Relatively little difference was found in the weight losses of the three steels in the initial period. However, as the test continued, the difference in the rates of corrosion changed appreciably. The Mayari R curve became almost horizontal, indicating that corrosion had practically stopped. The other two curves continued to rise sharply,

showing that corrosion continued unabated in both the carbon steel and copper-bearing steel.

It is important to note that after 10 years of exposure, Mayari R had lost no more weight than copper-bearing lost in 2 years, and no more than carbon steel lost in 1½ years.

The superior resistance to atmospheric corrosion shown by Mayari R is mainly due to the relatively thick and tightly adherent layer of rust that forms on the surface of this steel to protect it from further loss of weight.

This superior corrosion-resistance is one of the important reasons why Mayari R is now widely

used in railway cars, mine cars, bridges, industrial structures, coal silos, smoke stacks and countless other applications where long service life and low-cost maintenance are essential.

For more information on this versatile grade of steel, call or write any of our sales offices.

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WORM GEAR

## WEEK AT A GLANCE

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**STILL LESS FOR FREIGHT CARS?**: Allocation of steel for construction of new freight cars—already cut from a 10,000-car-a-month to a 9,000-car-a-month level—may be further reduced by July to an amount which would permit building only 6,500 cars a month, if I.C. Commissioner J. Monroe Johnson's information is correct. The report, which came out during last week's rate increase hearing, is summarized in the news columns, along with Commissioner Johnson's comment that such a reduction would be a 35 per cent cut, while production of passenger automobiles has been cut only a little over half that much. The 10 per cent reduction already in effect is the subject of editorial comment on page 37.

**IN THE WEEK'S NEWS:** Car installations, though still "disappointingly low," exceed retirements for second straight month, but "shortages still continue," according to C.S.D. Chairman Arthur H. Gass.—C. & O. authorizes construction of facilities for servicing passenger diesels at key points on its Chesapeake district main line.—February equipment orders include 15,129 freight cars, six steam locomotives and 170 diesel units, costing an estimated \$111 million.—Pacific Fruit Express to build \$1 million ice plant at Laramie, Wyo.—New York & Long Branch to rebuild trestle at Matawan, N. J.—C. & O. to offer stock, subject to I.C.C. approval, to top executives.—C. B. & Q.-D. & R. G. W.-W. P. inquiring for 22 sleeping cars.—Army Transportation Corps orders 63 hospital cars from St. Louis Car.—B. & M. declares initial dividends on new preferred and common stocks.—C. R. I. & P.-F. W. & D. C. lease Burlington-Rock Island for 99 years.

**NOT-SO-OPEN ROAD:** In three separate cases, the U. S. Supreme Court has upheld I.C.C. decisions which, as our news report on the cases states, "will drive trucking affiliates of railroads out of the so-called all-motor freight business." The court decisions, which affect highway transport affiliates of the Rock Island and the Texas & Pacific, grew out of commission decisions imposing on the operations of those affiliates new or additional conditions designed "to insure that their highway freight operations became auxiliary to rail services of the parent railroads." It rather looks as though the "open road" was not so open after all—not at least to the railroads.

**TRANSCONTINENTALS BY DIESEL:** What his company has learned from experience about the advantages of diesel locomotives for the handling of heavy, long distance freight and passenger trains is discussed, beginning on page 51, by J. W. Corbett, vice-president, operation, of the Southern Pacific. "Ultimately," Mr. Corbett says, "S.P. is aiming at complete dieselization," though its realization of that goal "is still some years in the future."

**MANY SIDED APPROACH:** There is no ready or simple answer to the problem of overcoming the alleged drain of passenger service on railroad revenues. To quote the latest annual report of the I.C.C., "a many sided approach is re-

quired." Some of those sides—and some of the angles between them—are explored in this issue's leading editorial, which, among other things, points out that more than half the deficit is attributable not to passengers as such, but to head-end traffic, much of which is really *freight* handled in passenger service.

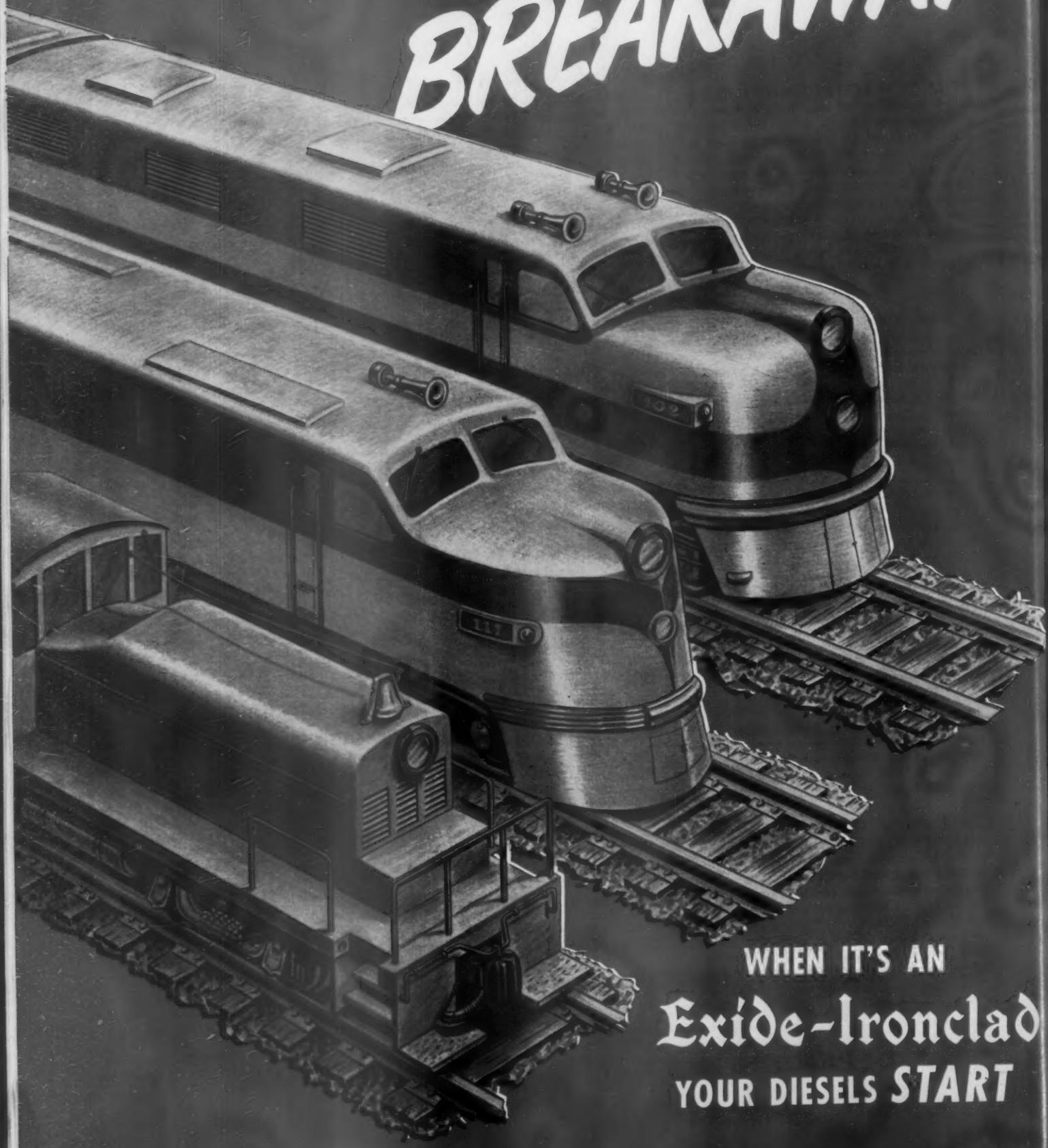
**TRAINWAY:** By careful planning, close cooperation and cost allocation that was at least more equitable than in many such projects, the city of El Paso, Tex., the state highway department and several railroads have carried to completion a major grade separation project involving a half-mile of track depression and construction of eight vehicular bridges in the heart of the city. The nature of the work, the reasons for adopting the plan finally used, and some of the more interesting construction aspects, are all outlined, with illustrations and diagrams, in the feature article which starts on page 54.

**FOR BETTER FREIGHT TARIFFS:** "If research made possible our industrial achievements . . . research conducted by men whose mental approach to the problem will not be biased or bound by tradition will make possible the long and greatly needed improvement in our freight tariffs." So says J. W. Peters, traffic manager of General Motors' Delco-Remy division and chairman of the N.I.T. League's Rate Construction and Tariff Committee, in an article beginning on page 44. But, Mr. Peters warns, the task of tariff improvement "is too large, the issues too involved and the time required for thoughtful study too great for anyone or any group to attempt handling on a part-time basis." A full-time research group set up by the railroads, to work in close cooperation with shippers, is the method he advocates for attacking the problem.

**EASING THE CAR SHORTAGE:** Elimination of car shortages through purchase of new cars and repair of existing units is admittedly a railroad responsibility. But shippers can do plenty to help ease the situation by making good use of existing cars—by cleaning them thoroughly after unloading, for example, so they are immediately ready for another load. The Otis Elevator Company is a good example of an important shipper which is doing just that—and, more, is spreading the clean car gospel in its own way and at its own expense. How? See pages 40 and 41.

**TO "LOOK LIKE QUALITY":** That's how the Scott Paper Company wants its products to appear to the consignee when they arrive at destination. To make sure they do, the company has undertaken an ambitious program of cutting to an absolute minimum its over, short and damage losses. The program covers the whole Scott organization, involves carrier cooperation and even extends to the consignees. What the company is doing, and the good results it is obtaining, are described in the article beginning on page 48.

for quick  
**BREAKAWAY**



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**Exide-Ironclad**  
YOUR DIESELS START

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## Diesel Cranking Batteries

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1888 . . . DEPENDABLE BATTERIES FOR 63 YEARS . . . 1951

# "PUSH BUTTON" WASHING with a WHITING TRAIN WASHER



Photo courtesy Southern Pacific Railroad



A Whiting Washer control panel located in elevated control house between solution station and washing rinsing station. Engineered for compactness and efficiency and gives operator perfect view of every operation.



The Southern Pacific Railroad uses a Type "D" Whiting Train Washer. It includes a 4-brush solution application station and a 4-brush washing and rinsing station.

WITH a Whiting Train Washer, complete trains, locomotives and all, can be washed at speeds up to 80 feet a minute while one man operates washer controls.

Some roads are washing over 200 cars a day without the involved lay-up time caused by slow, expensive hand-washing crews. Because of controlled operation, the Whiting Train Washer helps to preserve the glistening beauty of original finishes. It also prevents damp yards due to water excesses.

Single- and multiple-washer installations are engineered to meet your specifications for handling coaches, tenders, and Diesel locomotives. Retractable roof brushes may be added easily to any existing installation; thus, a complete train, locomotive and all, can be run through the Whiting Washer at the end of a run. Write for Bulletin CW-C-409 for more information.

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HYSTER 40	4,000 lbs.	M STRADDLE TRUCK	18,000 lbs.
HYSTER 75	7,500 lbs.	MH STRADDLE TRUCK	30,000 lbs.
HYSTER 100	10,000 lbs.	KARRY KRANE	10,000 lbs.

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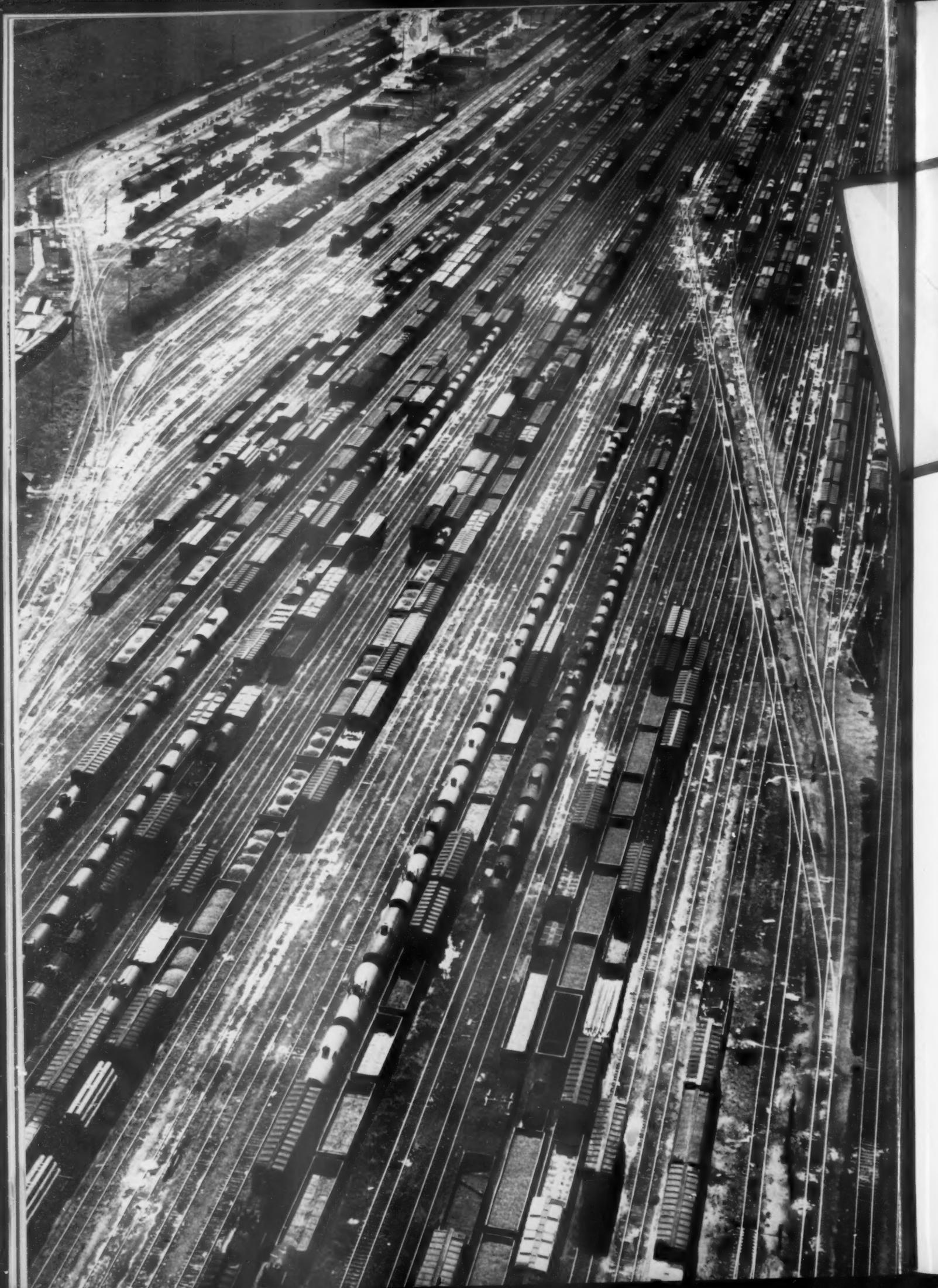
Model	Capacity	Model	Capacity
CARGO	4,000 lbs.	PLATFORM	4,000 lbs.
PALLET	4,000 lbs.	TUG (Towing)	20,000 lbs.

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**1. SAVINGS IN MAN-HOURS**—The reduction in maintenance man-hours alone paid for the cost of pressure grouting in some sections the first year. Elsewhere savings are expected to offset the entire cost of the grouting in periods up to three years.

**2. SAVINGS IN BALLAST**—On the first three sections grouted, totaling 38,258 ft. of track, portland cement pressure grouting saved nearly 8,000

cu.yd. of ballast in resurfacing. Further savings will accrue each year.

**3. IMPROVED OPERATING CONDITIONS**—Many slow orders of long standing were lifted. Increased speeds of as much as 40 mph. became possible.

**4. REDUCTION IN SHIMMING**—Much less shimming was required after pressure grouting on many sections of track that heaved badly during freezing weather.

More than 55 major railroads are using pressure grouting to eliminate soft spots, stabilize fills, improve operating conditions and increase passenger comfort. Write today for free technical information. Distributed only in U.S. and Canada.

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A national organization to improve and extend the uses of portland cement and concrete through scientific research and engineering field work

# HOW HARD WILL IT HIT?

## • FORCES TRANSFERRED TO CAR STRUCTURE •

AT **2** M.P.H.

100,000 LBS. WITH CONVENTIONAL DRAFT RIGGING

LESS THAN 50,000 LBS. WITH DURYEA CUSHION UNDERFRAME

AT **3½** M.P.H.

200,000 LBS. WITH CONVENTIONAL DRAFT RIGGING

LESS THAN 63,000 LBS. WITH DURYEA CUSHION UNDERFRAME

AT **5** M.P.H.

500,000 LBS. WITH CONVENTIONAL DRAFT RIGGING

LESS THAN 80,000 LBS. WITH DURYEA CUSHION UNDERFRAME

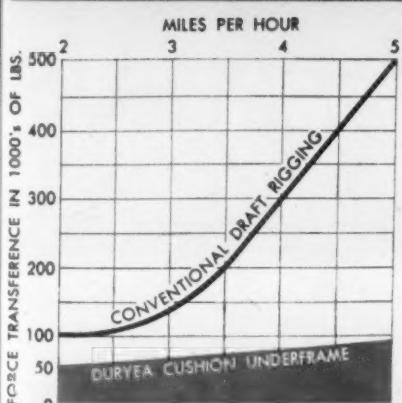


Chart above serves to illustrate with curves the rate of shock transferred to car structure at 2, 3½ and 5 miles per hour with conventional draft rigging as compared with Duryea Cushion Underframe.

The function of any car cushioning device is to so dissipate the shock forces of impact that the irreducible minimum of these forces is transferred to car structure and lading.

The degrees of shock transference with conventional draft rigging and with Duryea Cushion Underframe is depicted in the chart above. Note that at 5 miles per hour, the shock transference on Duryea equipped cars is but 16% of that for conventional cars. And bear in mind, too, that check tests of a care-

fully controlled hump yard\* showed that 40% of the coupling impacts in this yard were at 6 miles per hour or higher.

What more convincing argument than these hump-yard check figures for equipping all freight cars to provide the extra protection of shock force control?

To safeguard cars and protect lading, specify Duryea Cushion Underframe on your next freight car order.

\* See RAILWAY AGE November 4, 1950

**HULSON CO.** • 332 SOUTH MICHIGAN AVENUE CHICAGO 4, ILLINOIS

# duryea

cushion underframe



THE SILL MOVES  
WHILE THE CAR  
STANDS STILL



# STANDING STILL ...AT 50 MPH!

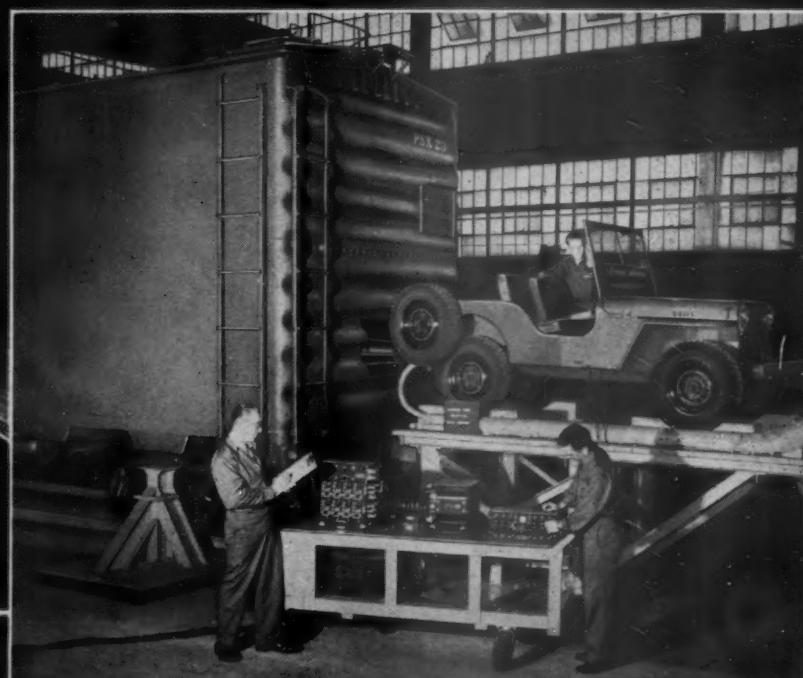
*Dynamic test . . . at Pullman-Standard!*  
Here's how our unusual *fatigue test* shakes  
the daylights out of stationary freight cars  
... at a simulated speed of approximately  
50 mph.

*This test crams YEARS OF WEAR AND  
TEAR into a few strenuous days.*

And here's how it's done. The jeep shown

in the photograph drives an *oscillating*  
device, mounted on the underframe inside  
the car. Two eccentric flywheels build up  
a vibration so severe that the whole car  
bounces up and down . . . and the lading  
leaves the floor!

Meanwhile, *electric strain gauges* record  
intensity of vibration at many points, from



roof to underframe. Visual observation, inside and out, detects other effects. And Pullman-Standard research engineers gather work-files of valuable data.

PS-1 box cars are tested in this way . . . also cars of other types. And the *results* of these tests are consistently reflected in the Pullman-Standard program for building freight cars *better and better*.

## Pullman-Standard CAR MANUFACTURING COMPANY

CHICAGO • NEW YORK • CLEVELAND • WASHINGTON, D. C.  
PITTSBURGH • BIRMINGHAM • SAN FRANCISCO



## The bundle of sticks

A wise old man called his quarrelsome sons about him. Taking up a bundle of sticks, he commanded each in turn to break the sticks. All tried, but in vain, and said it could not be done.

"And yet, my boys, nothing is easier to do," said the father, as he undid the bundle and broke the sticks, one by one. "By this example, you can see that united you will be more than a match for your enemies; but if you quarrel and separate, your weakness will put you at the mercy of those who attack you."

The useful truth of this fable is just as timely today as it was when the Greek ex-slave

Aesop told it 2,500 years ago. You, a patriot, believing in individual liberty and freedom for all, see our American way of life threatened by the menace of communism abroad and jeopardized at home by complacency, negligence, confusion and incompetence.

As a business leader in your own community, you have a particular responsibility to help unify your fellow citizens and guide their thinking and action--for the strengthening and preservation of the ideals that built America, in fact, made America the envy and goal of the very individuals now seeking to destroy it. In Union there is Strength.



**The Youngstown Sheet and Tube Company**  
 General Offices--Youngstown 1, Ohio  
 Export Offices--500 Fifth Avenue, New York  
 MANUFACTURERS OF CARBON ALLOY AND YOLOY STEELS

RAILROAD TRACK SPIKES - CONDUIT - HOT AND COLD FINISHED CARBON AND ALLOY BARS - PIPE AND TUBULAR PRODUCTS - WIRE - ELECTROLYTIC TIN PLATE - COKE TIN PLATE - RODS - SHEETS - PLATES.



WHERE THAT  
EXTRA

**1 1/2¢**

per day  
*pays off!*

The premium you pay for WAUGHMAT TWIN-CUSHION premium car and lading protection is estimated to be less than  $1\frac{1}{2}$ ¢ per day per car . . . a small charge for the car and lading insurance provided by Waughmat Twin-Cushions.

**It stands to reason, CARS LAST LONGER**  
when you provide extra protection against the shock of oversolid high-speed coupling impacts. Protect cars against wracking, frame-twisting, bolt-shearing forces to which they are so often subjected in humping and flat yard switching and, it stands to reason, you will extend their useful life years beyond normal car-life expectancy.

Cars and lading can be protected against most of these excessive transit and hump yard impacts. Provide double-action resistance to impact with the protective cushioning of WAUGHMAT TWIN-CUSHIONS. Twin-Cushions, having no solid point, cushion

shocks that would be over-solid with conventional cars and enable heavily laden cars to be humped in greater safety.

Allowing a minimum of free slack (only the play in coupler connections), Twin-Cushions permit heavy trains to start more smoothly, roll faster without pull-outs, or surging. The force and frequency of longitudinal shocks are greatly reduced and component vertical vibrations are halved when cars are Twin-Cushioned equipped.

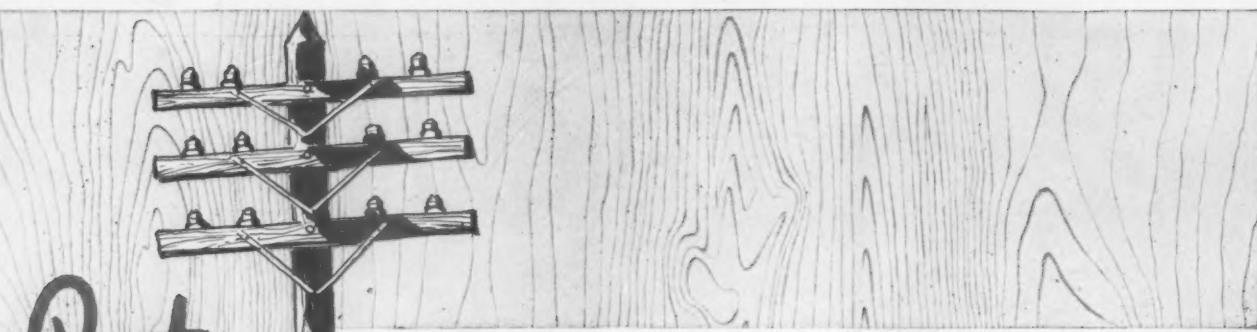
For car and lading protection that soon pays for the added cost, equip new or existing freight cars with the proven protection of WAUGHMAT TWIN-CUSHIONS.

**WAUGHMAT**  
*Twin Cushions*

TRADE MARK REGISTERED



WAUGH EQUIPMENT COMPANY, New York • Chicago • St. Louis • Canadian Waugh Equipment Company, Montreal



**Penta\***

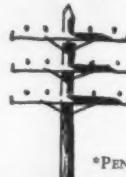
protects poles, cross-arms

and other wood construction

PENTA-PROTECTED wood effectively resists termites and decay, lasts up to *four times longer* than untreated wood. PENTA leaves wood clean, easy to work with and handle.

Specify PENTA-PROTECTED wood for poles, cross-arms, all wood construction. PENTA-PROTECTED wood is *dependable* wood—for years to come.

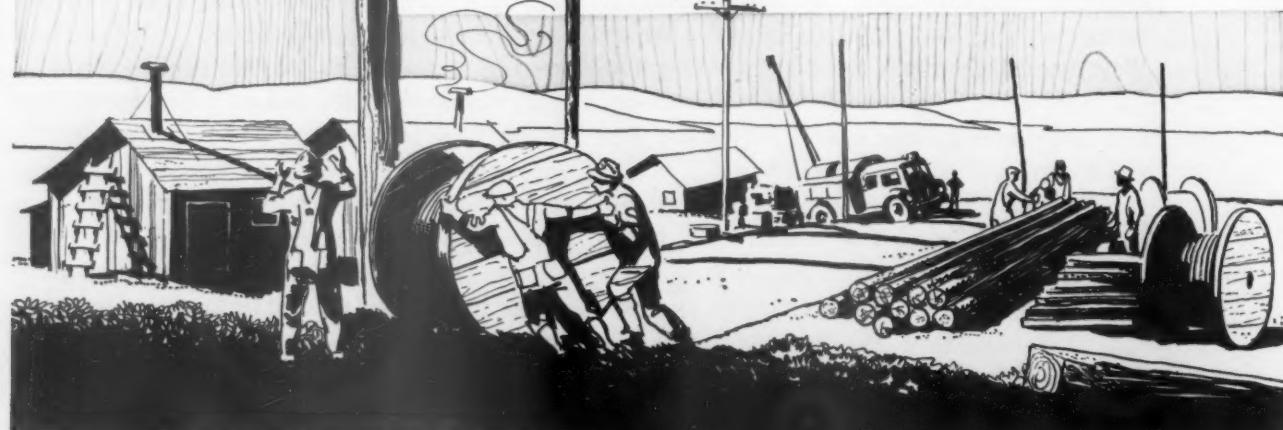
PENTA's superior performance record of the past 15 years proves it a *sure* wood preservative!



- PENTA-treated wood is *clean*.
- PENTA will not leach.
- PENTA is a chemical of constant, uniform effectiveness.

\*PENTA is a popular abbreviation of the name of the chemical, PENTACHLOROPHENOL.

THE DOW CHEMICAL COMPANY  
MIDLAND, MICHIGAN



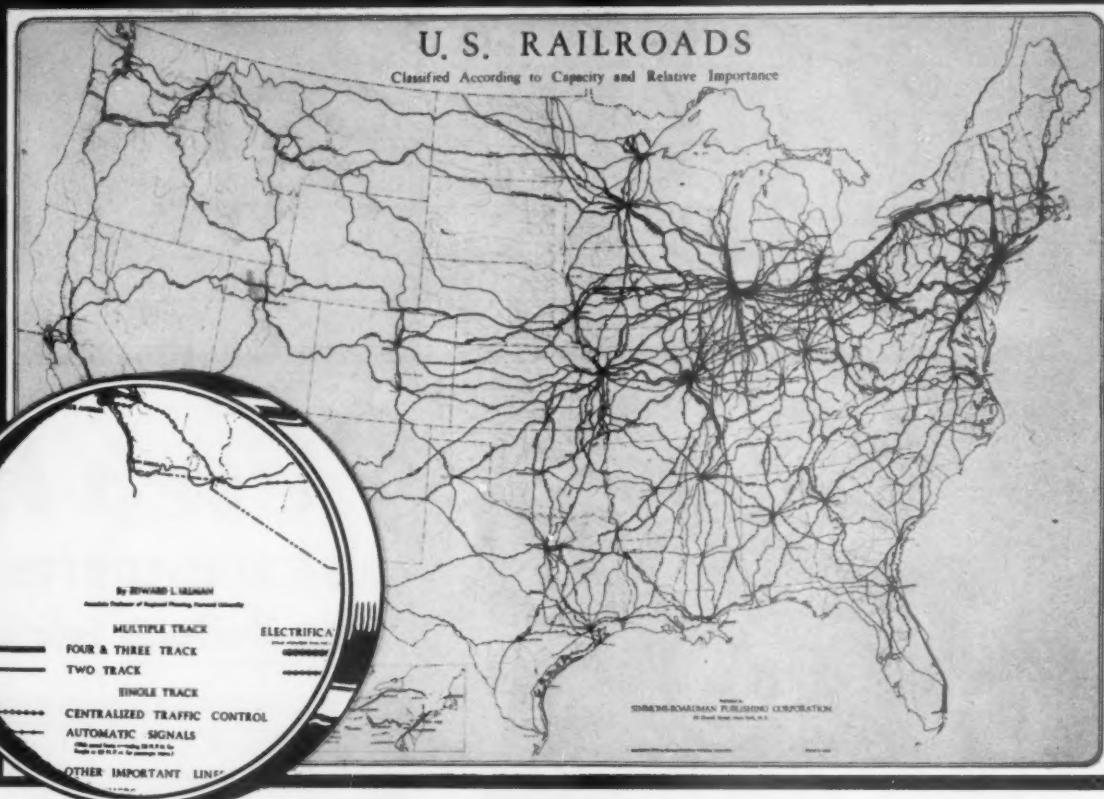
Write for Dow's free booklet, "Pointers on Penta"

The Dow Chemical Company  
Dept. PE-24  
Midland, Michigan

Name \_\_\_\_\_ Title \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_



# Just Published!



## NEW 3-COLOR 34 x 44-INCH WALL MAP SHOWS YOU RAILROAD FREIGHT CAPACITIES INSTANTLY

### SAVES YOU TIME AND LABOR

This remarkable map of U. S. railroads was completed only recently. Nothing like it has ever been devised. Prepared\* under the direction of Professor Edward L. Ullman, Harvard University, it is actually a completely new type of time-and-labor-saving tool. The map is designed specifically to help men like yourself who are engaged in railway freight traffic work.

### CLASSIFIES ROADS BY CAPACITIES

Consider the convenience of having reliable information of this sort instantly available. A glance at the map shows you all major U. S. railroads divided into these six classifications: three and four track roads, double track roads, single track roads with centralized traffic control, single track roads with automatic signal installations, other important single track roads, all other trackage. Electrification is also shown. In every case, the most recently available data were used. Thus, the map is not only the first of its kind, but also the most up-to-date and accurate U. S. railroad map available.

### SIZE, COLOR MAKE MAP EASY TO READ

Nearly three feet high by four feet wide, the map is ideally suited for display and use on wall or office desk. Trackage is shown in dark blue; railway names, state boundaries, and major cities in gray; water areas in light blue; and special symbols in red. The combination of size and three-color printing on white paper makes it simple for you to tell instantly the traffic potentialities of roads in any section of the United States. The research, the expert knowledge, the painstaking labor, and expensive production represented in this map make it an outstanding value at only \$2.50. Once you experience the convenience of using it, you'll say it's the most useful railroad map you've ever owned. Fill in the handy coupon at right and mail your order now.

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Send at once \_\_\_\_\_ copies of U.S. Railroads Map. I understand that I may return the map within 10 days without charge if I am not completely satisfied.

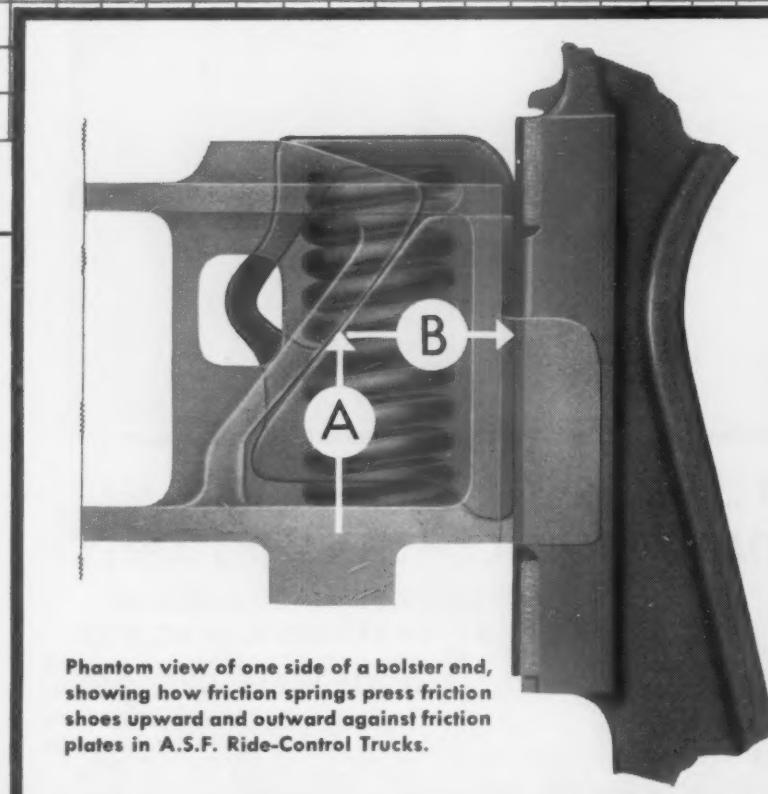
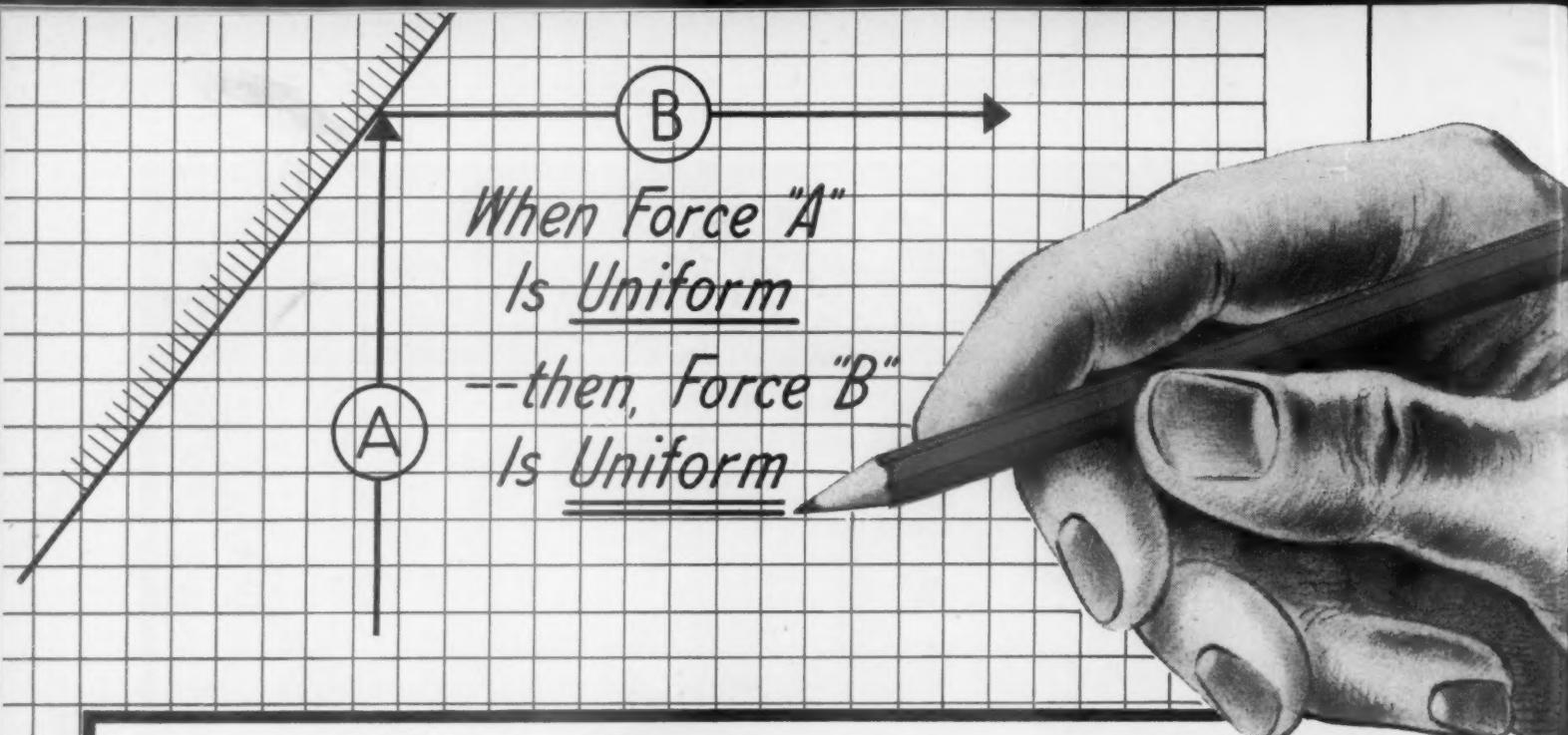
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Street .....

City ..... Zone ..... State .....

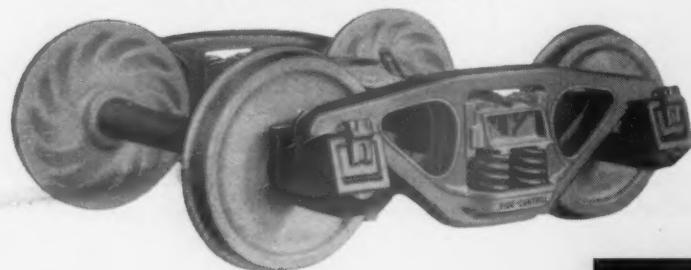
Company .....

3-5-51



## A-S-F Ride-Control® TRUCK

CONSTANT FRICTION CONTROL  
LONG SPRING TRAVEL



### Here's Why

**A-S-F RIDE-CONTROL TRUCKS  
have Uniform Friction Control**

- Friction springs, in Ride-Control Trucks, do just one thing: press friction shoes upward and outward against the stationary friction plates. Thus, they maintain constant, *uniform* pressure against a *fixed* resistance.

#### FRICITION SPRINGS DON'T FLEX

These pre-loaded springs *can't* fatigue; don't take a permanent "set." They expand only to equalize pressure, or when wear permits shoes to move higher—a very slow process in Ride-Control Trucks because shoes are tough, hardened cast steel.

#### SHOES VIRTUALLY NEVER WEAR OUT

A truck-set of shoes recently removed for inspection (after more than 80,000 miles) showed only  $1/32$ " of friction surface wear. This means that initial friction spring pressure remained practically constant throughout two years of constant use.

#### RIDE-CONTROL TRUCKS STAY YOUNG

Non-flexing springs + long-wearing shoes = uniform friction control . . . and welcome, low-maintenance, *like-new* performance as mileages mount on smooth-rolling Ride-Control Trucks.

**AMERICAN STEEL FOUNDRIES**

MINT MARK OF FINE PRODUCTS

**RUGGED  
RAILROADERS  
love this**

*Gentle Touch!*



### **NP Automatic END DOOR OPERATORS**

Veteran trainmen appreciate the fact that every added improvement in passenger car equipment makes their road a better road — makes their job a better job!

Passenger comfort, safety and convenience are prime considerations for every railroad man, for these are basic ingredients of successful operation. More than 25 Class 1 railroads have found that NP Automatic End Door Operators, installed on both new and reconditioned cars, give passengers something they have always wanted — prompt, effortless, *safe* opening and closing action of end doors. With NP Automatic End Door Operators, all that is needed is the pressure of a fingertip. The door — whether swinging or sliding type — opens as though by magic, then automatically closes — smoothly, silently, safely!

NP Automatic End Door Operators are compact and rugged in construction and give trouble-free, dependable service. Their timed closing action effects real savings in air-conditioning costs, and the simple mechanism requires only minimum maintenance.

Write today for Publication No. 1063, which gives complete information.



# **National Pneumatic Co., Inc.**

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Represented in Canada by Railway & Power Engineering Corp., Ltd., Toronto

# B & O's Fast Freight "Sentinel Service"

## WINS TONNAGE BACK TO THE RAILS

From Philadelphia, west to Willard, Ohio on the route to Chicago, the B & O's crack "Sentinel Service" trains are breaking records for fast and reliable service. Through accurate scheduling, customers receive siding-to-siding dependability, know the exact time the goods will be delivered.

Providing the speed for heavily-loaded "Sentinel Service" trains—and also for the "Time Saver," the LCL freight train that has cut schedules one-third—are Alco-GE diesel-electrics.

*And they're serving a dual purpose*, for many of them are equipped with steam generators to haul main line passenger trains.

The results are self-evident. The B & O has proved that competition can be overcome with dependable, efficient service. Their new fleet of Alco-GE "1600's" has power to move freight trains at express speeds, and can also be assigned to mainline passenger service. Here's real earning power at work!



AMERICAN LOCOMOTIVE  
and  
GENERAL ELECTRIC

113-255





# railroad handyman



LIFTING THE BIG ONES in car shops and yards, Internationals do yard and shop jobs at savings of man-hours and money.

## International power makes light work of odd jobs in yards and shops

Whether it's assembling parts in yard or shop, off-track grading, hauling, sweeping, shoving slag, shoveling snow—your railroad has a hundred jobs, and International power can help save money on every one of them!

Seven rugged crawlers and five fast-moving wheel tractors offer you the right-size model for any kind of work... and a full range of equipment lets each model do a variety of jobs.

International tractors combine brute force with champion dependability, to reduce downtime and maintenance costs. And Internationals deliver top power at bottom cost.

Your International Industrial Distributor is part of a country-wide service organization that's always at your call, wherever your equipment goes. See him—and see the tractors that deliver Power that Pays!

INTERNATIONAL HARVESTER COMPANY, CHICAGO 1, ILL.

INTERNATIONAL



POWER THAT PAYS

# Fairmont

RAILWAY MOTOR CARS  
AND WORK EQUIPMENT

... entrusted with the  
most important job  
in railway maintenance!



**Performance**  
ON THE JOB  
COUNTS

Over half the railway motor cars now in use are Fairmonts—and to many of them have been entrusted the all-important job of inspection. The selection of Fairmont for this vital task is a natural one—for no other railway car manufacturer has brought so many improvements to the job—or achieved such an enviable record for reliability and performance. The MR 19 Series A Inspection Car shown above, for instance, pro-

vides a "Two-Way" Drive which permits the car to be driven either backward or forward at two different speeds without reversing the engine. Furthermore, its simple, rugged construction assures greater economy and durability. Like all Fairmont inspection cars, it has been designed and built specifically for the task—and has proven beyond question its ability to perform where performance counts—*on the job!*

FAIRMONT RAILWAY MOTORS, INC., FAIRMONT, MINNESOTA



No. 488 Iron Body Clamp Gate

You make them less often  
by using Dependable Quality

## CRANE VALVES

*... That's why  
more Crane Valves  
are used  
than any other make*

◀ **easy access prevents trouble with this valve**



Remove just two nuts to dismantle this gate valve for inspection, cleaning, or repairs—without taking it from the line. Reassemble just as easily, knowing that Crane clamp design keeps the bonnet joint snug and accurately aligned. Use Crane Clamp Gates on steam, water, and air, but especially in heavy fluid lines needing periodic cleanout. They'll save time, labor, and encourage regular servicing that prevents valve trouble.

Combining easy access with highly dependable service features, Crane Clamp Gates typify Crane Quality—better valve performance at lowest ultimate cost.

# CRANE

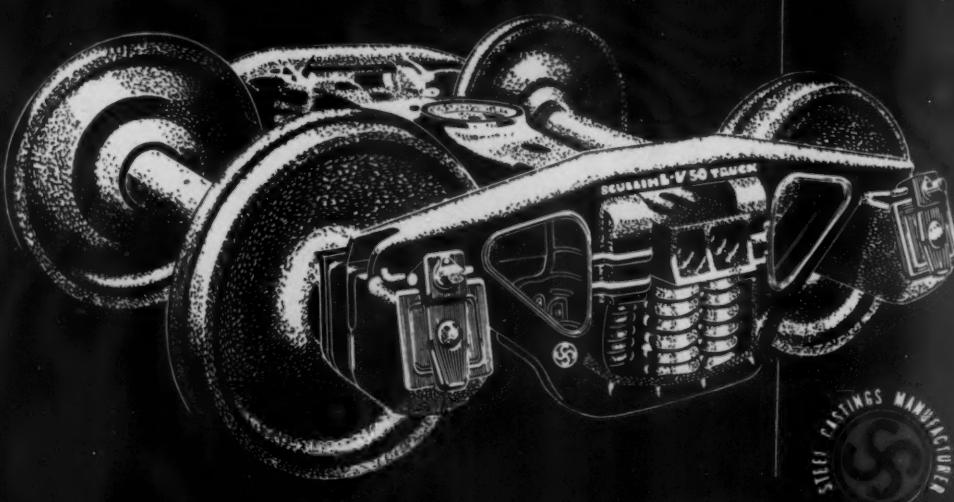
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Branches and Wholesalers Serving All Industrial Areas

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the smoothest  
traffic-builder  
between  
LCL  
and your rails



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NEW YORK  
CHICAGO  
CLEVELAND  
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# Passenger Comfort and Electric Power

Modern cars assure comfortable travel as a result of many things, not least of which is the increased use of electric power for improved lighting, better control of temperature and humidity, and the operation of a variety of electrical appliances.

The capacity of the electrical system, including the storage battery, has increased correspondingly; so that the use of EDISON Nickel-Iron-Alkaline Storage Batteries—the original light-weight batteries—saves more weight than ever. Often the saving amounts to as much as a ton per car—sometimes even more.

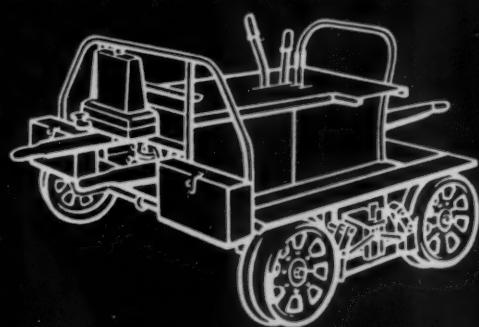
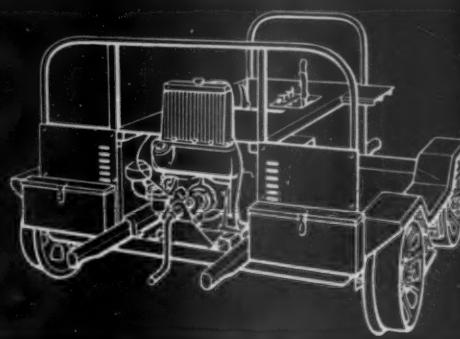
This saving is made without sacrificing mechanical strength; on the contrary, the steel cell construction of EDISON batteries is the strongest known, and is an important reason for their long life. Their

long life in turn means low costs of operation. And today these costs are substantially lower, compared to other operating costs, than they were before the war because selling prices of EDISON batteries have advanced little more than half as much since 1940 as the average prices of materials purchased by American railroads. Get an up-to-date price quotation from our nearest office; see how much you can save in operating costs. Edison Storage Battery Division of Thomas A. Edison, Incorporated, West Orange, New Jersey.



**EDISON**  
*Nickel • Iron • Alkaline*  
**STORAGE BATTERIES**

**More safety—more efficiency**  
 — in the new Model 101 inspection car. Four speeds forward, three reverse, with immediate reverse attainable without reversing engine. Wheel silencers, rear lifting weight of 98 pounds. Carries four men in comfort — with speed and safety.



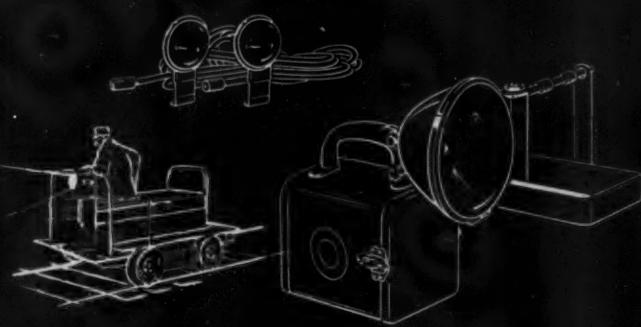
**More safety** in this modern 57D one-man car. It's fast, light and dependable. Built by men who know railroading problems, the 57D has friends on railroads all over the country.

## FOR MORE SAFETY... the name is **FAIRBANKS-MORSE,**

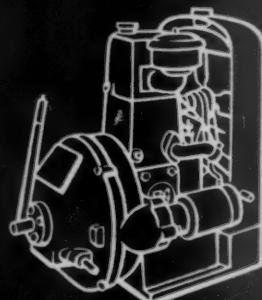


**a name worth remembering**

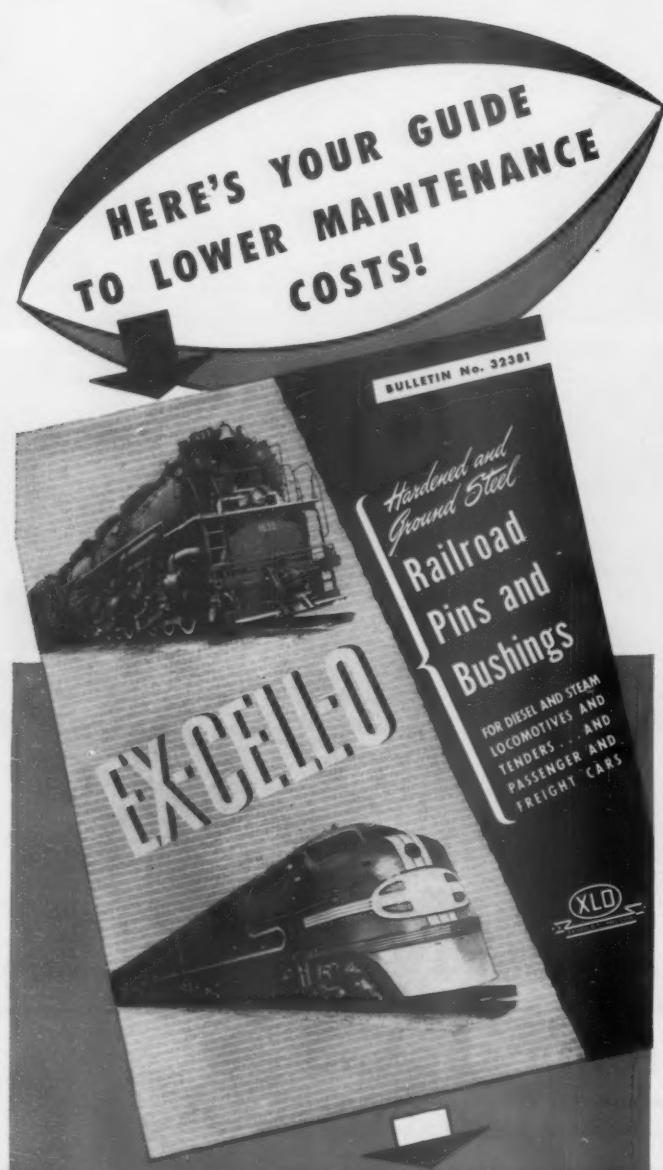
DIESEL LOCOMOTIVES AND ENGINES • ELECTRICAL MACHINERY • PUMPS • SCALES  
 HOME WATER SERVICE AND HEATING EQUIPMENT • RAIL CARS • FARM MACHINERY



**More safety** at night can be inexpensive: the easy installation of rugged, weather-proof searchlight and tail lights can save time — and save lives! Portable battery-operated and easy-to-install reversible generator types.



**More safety** in off-track work for those who depend on Fairbanks-Morse portable generating sets. Widest range of capacities — diesel or gasoline engine models. Write for descriptive literature on any or all of this Fairbanks-Morse signalman's equipment. Fairbanks, Morse & Co., Chicago 5, Illinois.



### EX-CELL-O Railroad Pins and Bushings For Diesel or Steam Equipment

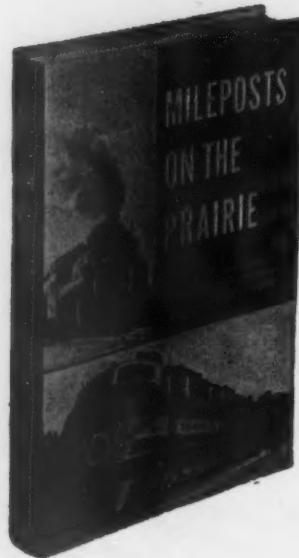
More than 200 railroads and railroad equipment builders (both steam and Diesel) specify Ex-Cell-O pins and bushings. You'll see why when you get this colorful new catalog. Ex-Cell-O railroad pins and bushings are case-hardened for longer wear; finished to precision limits to maintain other parts in alignment and prevent "cocking" of equipment. Steam and Diesel equipment styles and sizes are given in the new Ex-Cell-O Bulletin No. 32381. Write Ex-Cell-O in Detroit for your copy today.

Railroad Division  
**EX-CELL-O CORPORATION**  
DETROIT 32, MICHIGAN

### The Story of the Minneapolis & St. Louis Railway . . .

#### MILEPOSTS ON THE PRAIRIE

By Frank P. Donovan, Jr.



For decades railroaders regaled each other with yarns about railroading on "The Louie." Many of them became standard jokes. In recent years, however, a new kind of story—a success story—has prevailed. "The Louie," they say, is now one of the best operated roads in the country.

Frank P. Donovan, Jr., an ex-railroader, in collecting material for this history of the M. & St. L., talked with many of the old timers and obtained original versions of many of the stories about "The Louie." Through extensive research he was able to piece together obscure episodes in its colorful history. How this "sick railroad" was restored to sound economic health by "Doctor" L. C. Sprague, is vividly described.

You will enjoy this lusty story of railroading in the Northwest. Thirty-two pages of authentic photographs help visualize its growth into a fully equipped and modern railroad. *Send for your copy today.*

352 pages, 74 photographs, charts, end-paper maps, bibliography, index, cloth, 5½ x 8½, \$4.50

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30 Church Street, New York 7, N. Y.

Please send me on Ten Days' Free Examination, a copy of MILEPOSTS ON THE PRAIRIE, by Donovan. I will either remit the list price of \$4.50 or mail the book back without obligation.

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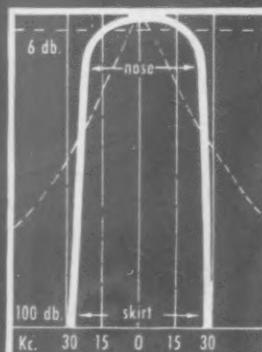
# RADIO COMMUNICATIONS

**DESIGNED FOR YOUR RAILROAD TODAY**  
**with best dollar-value tomorrow!**

Low initial cost, high quality components, and low maintenance costs—proved on the leading railroads—makes Motorola Universal radio equipment the outstanding choice today!

The marvelous Sensicon receiver circuit, with the Permakay wave filter, puts you years ahead of any changing conditions. Your investment today carries its own protection for tomorrow. Your equipment is free from obsolescence . . . and you are assured the longest *sustained* service at the lowest overall cost.

*Performance and ruggedness!* All steel welded construction designed for durability as well as dependability . . . wide choice of mounting designs with optional shock proofing for locomotive, caboose, yard house or terminal. Models to operate from 6 VDC, 12 VDC or 117 VAC power sources.



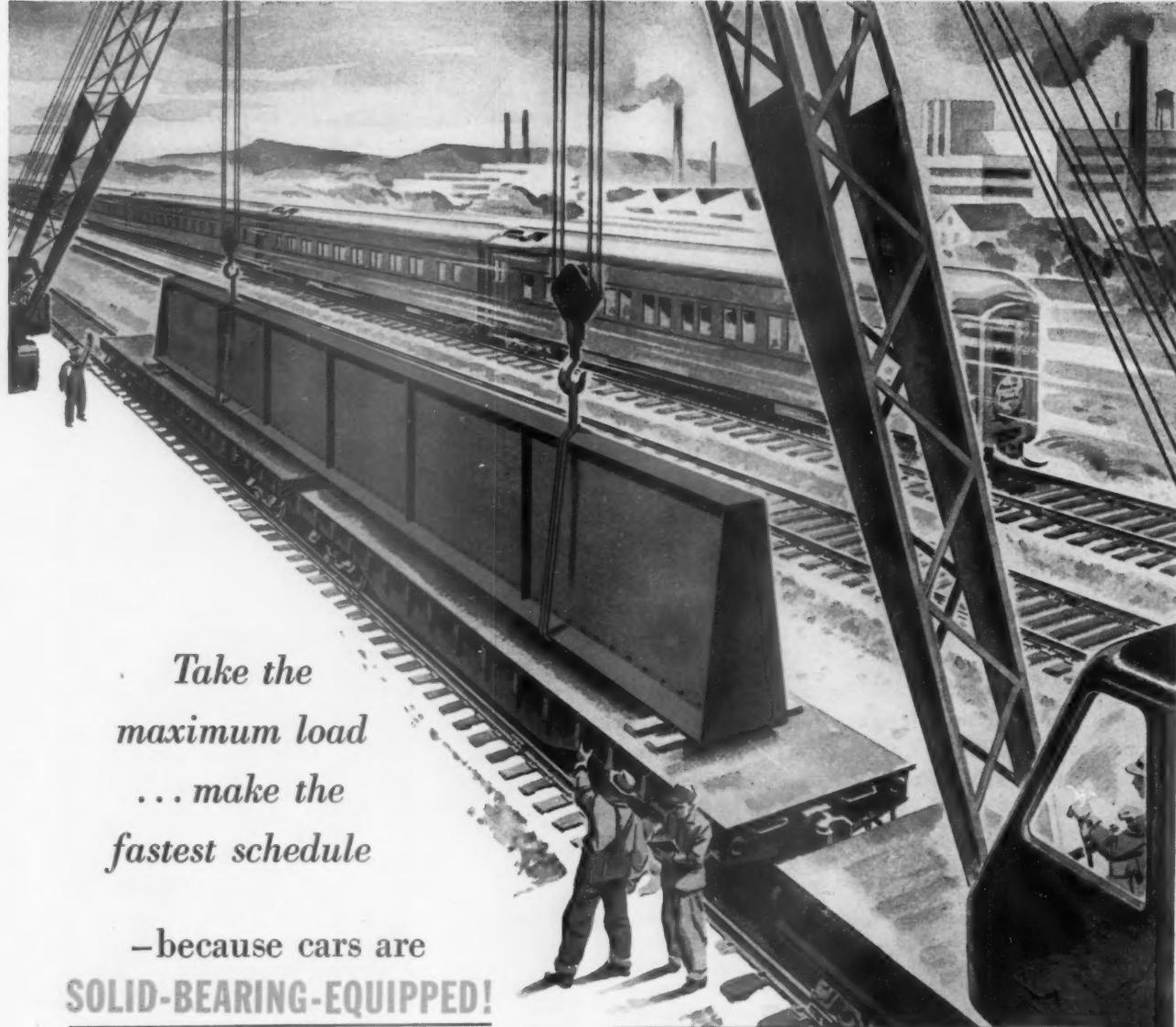
Motorola's I.F. wave filter allows full utilization of  $\pm 15$  Kc. modulation all the way from 100 db skirt to 6 db. nose with full acceptance and intelligibility.

**SPECIFY  
Motorola  
FM 2-WAY  
RADIO  
AND YOU  
GET THE BEST!**

# Motorola



COMMUNICATIONS & ELECTRONICS DIV 4545 Augusta Blvd., Chicago 51



*Take the  
maximum load  
... make the  
fastest schedule*

—because cars are  
**SOLID-BEARING-EQUIPPED!**

Steel, stone, coal, ore, cement—take anything at all on AAR solid bearing cars . . . and highball along at maximum roadbed speeds.

Loads? Well, the load limits of AAR bearings have not even been approached. Compressive strength of the babbitt is 20 times the maximum journal load at highest normal temperatures.

And speed? Why AAR solid bearings operate just as safely and efficiently at 90 m.p.h. as at 10. *Oil film pressures increase with speed.* You get a thicker film of oil that more than compensates for any viscosity change.

You just can't beat low-cost solid bearings for railroad rolling stock!

**MAGNUS METAL CORPORATION**

Subsidiary of NATIONAL LEAD COMPANY, New York, Chicago

Here's why  
America's Railroads  
have standardized  
on solid  
journal bearings



**MAXIMUM DEPENDABILITY:** In daily operating service, an unequalled record for bearing assembly performance.

**SMOOTHEST RIDING QUALITIES:** Lateral shocks are flexibly controlled—not rigidly opposed.

**LOWEST ACCELERATING AND RUNNING RESISTANCE:** Glides on a single film of oil, like a skater on ice.

**EASE OF MAINTENANCE:** Can be fully inspected or replaced on the line in about 10 minutes. No shopping required.

**UNIVERSAL INTERCHANGEABILITY:** Simple—dependable—economical—safe.

**LIGHT WEIGHT:** Saves many tons of excess dead weight on every moving train.

**ROCK BOTTOM COST:** Saves over 25% on initial car cost—96% on bearing replacement.

### THAT PASSENGER DEFICIT

When shippers read about the \$650 million deficit in passenger train service incurred by the railroads in 1949—which “absorbed” more than 48 per cent of the net revenues earned by freight service—and are told by the railroads, in the current national freight rate case, “It seems likely that the deficit for 1950 . . . will exceed or equal that of 1949,” they must experience emotions akin to those of the victim of the Mikado (in the comic opera) who was made to suffer

“To ride on a buffer  
In Parliamentary trains.”\*

Before the passenger deficit is used, however, as a battering ram hit-or-miss against managerial competence or as an excuse, in these inflationary times, to deny the railroads the higher prices most businesses already have obtained, it ought to be made plain that the deficit results largely from (1) head-end traffic (which shippers utilize as *shippers*) rather than the movement of people; from (2) inadequate payments to the railroads for carrying the mails and unfair competition of parcel post with railway express; and from (3) poorly patronized branch line and local service which local and state civic and business bodies demand. It can be proved beyond doubt that the deficit will not be reduced by a hysterical abandonment of trains or cessation of improved service on the modern, intercity runs which turn in substantial net profits.

#### **Head-end Largest Contributor**

Before it is demanded that the railroads stop buying or running streamliners or that train-miles be slashed pro rata, it would be well to recall that more than 60 per cent of the 1949 passenger service deficit was attributable to head-end traffic (mail, express, baggage and

milk.) In previous years head-end business was the cause of an even greater share of the loss. Besides letters and poodles, head-end traffic includes a large volume of what is actually *freight*. Because of their size and multiplicity and diversity of origin and destination, these shipments are inherently expensive to handle. Yet their movement is essential to business, and if the railroads don’t handle them somebody else will have to.

More generous limits on weights and sizes of parcel post, plus higher rates for railway express, have, in recent years, brought about an important shift in volume from express to the mails. But since this traffic still had to be handled by the railroads anyway, as mail, the diversion had the tendency of worsening the passenger service deficit. It increased the losses sustained by the railroads in handling mail; greatly increased the operating costs and congestion at their terminals; and threw a large portion of express terminal facilities into disuse while, at the same time, it thrust an intolerable strain on mail handling facilities at the same points.

Movement of head-end traffic has a further, though less measurable, influence on the passenger deficit. It is apparent that service for passengers could be made much more attractive than it is, without the addition of a penny more in operating costs, if there were no head-end traffic to handle. Station delays which sometimes drive passengers to buses, planes and their own cars are caused by the loading and unloading of mail and express. Where total traffic does not warrant frequent service, passenger train schedules often are set by the needs of business and the postal system rather than by the times most convenient to the maximum number of passengers. Recently a railroad which sought to curtail passenger service on a major branch, and reschedule the trains remaining, was opposed by parties of shippers who advocated that trains be operated for the convenience of passengers but who insisted at the same time

\*Short run passenger trains which British railroads long have been forced by Parliament to operate for workmen at less than cost; years ago they had a reputation for extreme discomfort.

that time-honored schedules for mail and express be left undisturbed. Last year a road which was convinced that a two-a-day each-way service between two cities could not be made to pay operating expenses was almost embarrassed by the increase in volume of passengers produced after the service had been completely rescheduled, following a scientific study of travel habits and frequencies, but with complete disregard for the "convenience" of head-end traffic.

#### **Losses from "the Clunkers"**

Much of the deficit attributable to passenger movement results from the operation of branch-line and secondary or local main-line trains for which there is no longer an economic public demand but which state commissions insist be run to satisfy local pride or to provide a standby service when other transportation fails. Railroad efforts to withdraw these "clunkers" are rarely opposed openly by shippers as such, but they encounter bitter opposition from chambers of commerce and other civic groups, of which shippers are members. Other deficit services railroads fail to seek permission to withdraw because they fear the traffic reprisals of important shippers. The continued operation of so-called "policy" sleeping car lines is a case in point. One road which found it necessary to take off one of three daily trains was threatened with the diversion of freight traffic to a competing road which had never provided any kind of passenger service whatever.

Commutation service is another loser of money. While it meets a real public necessity, its patrons are unwilling to pay enough to meet its costs of operation. Since the need for it is growing, rather than diminishing, regulators will have to allow fares high enough to pay costs or, as a dangerous alternative, tax monies will have to be used to make up the difference under some form of public authority control.

Finally, the passenger deficit is, like the farmer's report of his first view of a giraffe, "no such animal." Since 1936, with but slight variations, some 28 per cent of the costs reported each year have been produced by the apportionment of a "fair share" of expenses common to freight and passenger services. Formula allocations are tricky to interpret. Thus, for example, during the steel and coal strikes of 1949, the percentage of joint costs allocated to passenger service on a large eastern railroad rose from 48 to 55 per cent in the face of the fact that passenger volume remained the same as before and passenger train costs actually declined because the coal shortage reduced train-miles. The "deficit" shown for the Santa Fe in 1949 was about \$30 million. Actually the road realized from its passenger service in that year some \$23 million in revenues above out-of-pocket costs, which helped to bear the cost of maintaining the railroad.

Full-cost distribution, of the character on which the passenger "deficit" is based, would put the haulage of a large number of freight traffic commodities in the red.

In 1946 the Interstate Commerce Commission's Bureau of Transport Economics and Statistics introduced cost comparisons which showed that 85 out of a total of 156 commodities failed to pay enough to cover a full share of all costs involved in their transportation in the Western district. On many items moving in freight service, revenues received provide no greater margin over direct costs than do the earnings from passenger train service. Yet neither railroads nor shippers suggest that the movement of these commodities be discouraged.

The real test in any scheme to curtail passenger service is: Will you lose more in overall revenues than you will save in direct operating expenses? The railroads undoubtedly will continue to hack away at the trains which are hopeless out-of-pocket drains on revenues. They will need the active support of shippers in influencing civic bodies and state commissions to this end. They will continue the struggle for reasonable pay for carrying the mails and against unfair parcel post competition with express. They will bring to the handling of head-end traffic—insofar as its peculiarities allow—the improved materials-handling equipment and methods they have already introduced in their freight stations. In its recent annual report, the I.C.C. said it was worried about the drain of passenger service on railroad revenues, but that there was no ready answer and that "a many sided approach is required." Second the motion.

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## **WHY NOT RELATE CAUSE AND EFFECT?**

Almost without exception, technological improvements in the art of railroading have reacted to the benefit of railroad employees, in higher wages, shorter working hours, greater safety or better working conditions. Yet all too often railroad employees, or those who speak in their behalf, have shortsightedly resisted introduction of such technological improvements, or have refused to credit them with the benefits they have produced.

One reason for this resistance probably lies in the time lag which usually, of necessity, elapses between introduction of such improvements and actual realization by employees of personal benefits therefrom. Only rarely do the two events occur so close together that the relationship between them is clearly manifest to everyone involved.

Such an occurrence, however, is indicated by two items in the news columns of this paper's issue of February 26. On page 51 it was reported that the Rutland has made a commitment to purchase its first diesel power; on page 45, that the Rutland has signed new wage agreements with its employees—agreements which will cost the company an estimated \$550,000 a year—roughly one-sixth of its total former payroll. Savings to be anticipated from use of diesel power were said to be—and obviously

must have been—one of the factors which made possible the signing of the agreements.

Rutland employees, of course, will get far more than the company can possibly hope to save from its initial purchase of only five road-switchers. But without that saving, it would have been impossible to have granted the employees the wage increases they received; perhaps it would not have been possible to have agreed to any increases whatever.

Except for the time element, the same situation is true of the railroad industry as a whole. Without dieselization—and countless other technological improvements—the railroads could by no stretch of the imagination have afforded the tremendous wage increases of the past decade, no matter what economic or political pressures might have been put upon them. It is unfortunate that employees so often fail to recognize the real source of their advancing standards—fail to see that the real fountainhead of higher wages or shorter hours is not in “tough” leadership, but in the technological improvements which the railroads are so eager to make as fast as their limited earnings will permit. With all the public relations skill at railroad command, all the railroad magazines, and all the other channels for employee communication, isn't there some way of getting better “communication” to employees on the direct and necessary relationship which exists between technological advances and improving standards for employees?

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## PLANNERS IGNORE SHIPPIERS' NEED FOR CARS

The mighty minds which rule the economy have decreed a reduction in materials for freight car construction to allow for a production of only 9,000 cars in May instead of the standard monthly goal of 10,000 cars. The mental process by which this conclusion was reached appears to have been as follows:

Since allocations of materials calculated to produce 10,000 cars were so faulty in January that they actually produced only 6,000 cars, then allocating so much material to freight car construction is futile—hence a reduction in allocation is decreed so that a production of only 9,000 cars will be our goal.

If it be not *lèse majesté* to question the logic of such exalted mentalities, it might be suggested that if alleged allocations for 10,000 cars permit only 6,000 cars to be produced, then alleged allocations for 9,000 cars will probably produce only 5,400 cars, or not enough cars to offset necessary retirements. Failure to attain that reduced goal could then be used as an excuse to reduce allocations still further until no cars at all were being produced.

It might be further inquired how these master planners expect national production to expand as military

necessity requires, if there are no facilities with which to haul the materials required for expanded production. It would be just as sensible to decree a reduction in steel and coal producing capacity as to decree the reduction in railroad hauling capacity which these great minds have ordered. Aren't there enough voices in the traffic and transportation fraternity to arouse these planners to the realization that they are supposed to be working for Uncle Sam, not Uncle Joe?

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## OPEN FREIGHTHOUSES DESERVE OPEN INDUSTRIES

Since the advent of the 40-hour week in the railroad industry, there has been considerable agitation among receivers of l.c.l. freight over the closing of freight stations and the cessation of l.c.l. deliveries on Saturdays. The absence of Saturday openings and l.c.l. deliveries, these receivers argue, results in an over-concentration of freight to be handled Fridays and Mondays. This subject has been discussed often, and the railroads are urged repeatedly to restore Saturday operation at principal freighthouses and Saturday l.c.l. deliveries.

At a recent Shippers Advisory Board meeting at which this suggestion was again advanced a railroad representative pointed out that a survey of the conditions actually prevailing disclosed that most important freighthouses *are* working and l.c.l. deliveries *are* being made on Saturdays whenever there is enough freight to justify the service—even though the railroads must pay punitive overtime rates to employees for this work. Although some freighthouses are closed which conceivably might well be opened Saturdays, by and large wherever possible the railroads have granted this request of the receivers of l.c.l. freight.

But what have these same receivers been doing? The same survey showed that although many railroads have restored the six-day week at considerable expense, receivers in ever-increasing numbers have stopped receiving freight six days a week. Some won't receive freight on Mondays before 2 p.m., others won't receive on Wednesdays, or on Saturdays, and so on. Receivers of l.c.l. freight who insist that the railroads work six days a week, regardless of overtime costs, apparently are facing the same 40-hour week problem themselves, and are seemingly unwilling to pay overtime rates to receive freight six days a week. The net result has been to nullify almost completely the benefits of the railroads' efforts.

It is obvious that unilateral restoration of the six-day week, either by the railroads or their patrons, alone will accomplish nothing. Unless the movement is a joint one by both carriers and patrons, then the expense of working the extra day, usually at penalty rates, might better be saved.



Switch crew foreman, right, receiving the radio handset from locomotive fireman on a switch engine in Kaw Bridge yard

**At Kansas City the Missouri Pacific has installed two-way radio in a yardmaster's office and on 10 switch engines which are used to handle interchange transfers with 11 other roads, and to serve 185 freight-houses, stockyards, warehouses and manufacturers in the industrial areas of the city**

## Car Handling Expedited by Radio

As a means of improving service to shippers in the warehouse and industrial areas of Kansas City, Mo., the Missouri Pacific has installed two-way radio for direct communication between the yardmaster's office and the cabs of the 10 diesel locomotives used to set out and pick up cars at 185 freight-houses, stock pens, warehouses and industries served from Kaw Bridge industrial yard. This yard is just east of the Kaw river where it flows into the Missouri river. Missouri Pacific road trains arrive at and depart from Topping Avenue yard which is 5 miles east of Kaw Bridge yard. Transfer trains handle cars from Topping Avenue yard to Kaw Bridge yard and return cars to Topping Avenue yard.

Each day about 100 to 125 cars are delivered from Kaw Bridge yard to the yards of 11 other railroads in the Kansas City area, and an equal number of cars are received in this interchange from other roads. Also each day, about 200 cars are delivered from Kaw Bridge yard to the freight-houses, warehouses, factories and industries, and about the same number of cars are brought back each day to Kaw Bridge yard. Approximately 25 to 75 stock cars are switched daily into and out of the stock yards.

The 10 locomotives used in this transfer, interchange and industrial switching service are all diesels, and are equipped with radio. The control unit for the fixed radio station is in the yardmaster's office in Kaw Bridge yard. This unit remotely controls radio broadcasting and receiving apparatus at a grain elevator with the antenna on top this elevator about 150 ft. above ground. This elevator is out in the flat river bottoms where the radio energy transmitted will be effective, not only throughout an area of 7.5 miles radius, but also on the tracks of the Missouri Pacific along and under high bluffs.

The crews assigned to this service start and quit work at State Line near Kaw Bridge yard. Much of the work is routine, in accordance with established plans. However, information and requests are received by the yardmaster that require changes in the procedure. Before the radio was installed, if the yardmaster wanted to contact a switching crew he had to go out on foot or in his automobile to hunt for them. Now, he can call any crew quickly from his office.

For example, at 10:40 a.m., one forenoon, the yardmaster telephoned the A. & P. warehouse, and was told that they had no cars to divert from the produce yard. Based on this information, the yardmaster dispatched the engine for this work to the east yard. However, at 11:05 a.m., the A. & P. warehouse telephoned the yardmaster that they now had a diversion order. By means of the radio, the yardmaster was able to recall the engine which was on its way to east yard, and have that crew deliver the cars from the produce yard to A. & P. warehouse promptly. This quick service resulted in much faster service to the shipper. At 2:25 p.m., the Bemis Bag Company telephoned the yardmaster requesting that a car be moved at its plant. Using the radio, the yardmaster called a switch crew in that vicinity, and the car was moved within 15 minutes. Without the radio, the yardmaster would not have been able to contact the crew quickly, and the car would not have been moved for an hour or more at least. At 3:30 p.m. the Nutrena Feed Company telephoned to the yardmaster, requesting that two cars, then at Wood Street, be moved to its plant. The radio enabled the yardmaster to call a switch crew that did the switching within a short time.

Late one afternoon, the Federal Cold Storage made a rush telephone call to the yardmaster, stating that three

cars of fresh meat were loaded and ready to move. By using his radio, the yardmaster was able to contact a crew switching in the Darby Corporation plant two miles away. He directed this crew to go at once to get the two cars of meat and bring them to the yard to be reiced. By thus using the radio, these cars departed on train No. 70 at 8 p.m., whereas without radio this meat would have moved on train No. 66 at 2 a.m., six hours later.

At 8:25 a.m., January 23, Wilson & Co. sent in a hurry-up telephone call requesting special service in spotting cars to save time in unloading and loading. With the radio the yardmaster communicated with a diesel switching crew that was then working at the Midwest Wool plant. He told this crew to go to Wilson & Co. to perform the special switching at once.

In the operation of the transfer cuts to Topping yard and the interchange runs to yards of other roads, numerous circumstances arise for changes in handling cars. With the radio, these changes can be made promptly so that incoming cars can be delivered sooner and outgoing cars can be placed in departing road trains or delivered to connections earlier. On some of the interchange runs, alternate routes are available and if delays are encountered, the yardmaster can direct crews to operate over other routes. This has saved much time.

#### In the Stock Yards

The Missouri Pacific handles as many as 100 cars daily into and out of the Kansas City stockyards. A large proportion of these cars are for handling feeder stock from the west into Kansas City where the stock is sold and reloaded into cars for movement to points in Missouri, Iowa and Illinois for feeding out for final market. Previously, the yardmaster was unable to keep in close touch with the switching crew assigned to work in the stockyards. The only means of getting information concerning progress or to change instructions was for the yardmaster to walk through the yards. With the radio, the yardmaster can keep in touch with this work and thus save time for trains for which stock is being loaded. For example, on one occasion, the radio was used to inform the yard office that the loading of three cars of stock had been completed earlier than expected and the cars were being pulled. This made it possible to prepare the waybills and get the cars on outbound train

No. 163 with a saving of about 30 minutes for this train.

Previously, if a switching crew in an industrial area wanted to contact the yardmaster, the crew foreman went to a regular telephone in the office of some warehouse or manufacturing plant to make the call. This lost a lot of time, and was not satisfactory. Now, the foreman can use the radio to call the yardmaster quickly, at any time. This use of the radio is often a help in giving shippers service in moving cars promptly, as soon as they are loaded.

#### How Radio Is Used

In the cab of the diesel switch engines, the radio is on the fireman's side of the cab. When the switch foreman wants to call the yardmaster he uses this radio in the cab of the locomotive. When the yardmaster calls a locomotive, the switch foreman answers if he is in the cab of that locomotive, and, if not, the fireman answers and calls the foreman to the phone.

As part of this project, two portable type walkie-talkie radio sets are available for use by the yardmaster, assistant superintendent or other person when walking or driving his automobile in any part of the yard area. The range between a walkie-talkie and the yard office is about two miles, and between a locomotive and a walkie-talkie, about one mile. These distances may vary depending on local terrain especially along the bluffs.

The radio equipment on the 10 diesel switch engines and the fixed station was supplied by Farnsworth. The two walkie-talkies are Doolittle Type PJZ-11. All this radio equipment operates at the same frequency, 161.49 megacycles, and, therefore, all calls can be heard on all the locomotives. This is oftentimes an advantage in co-ordinating operations quickly. On each locomotive, power is taken from the starting battery to operate a Cornell-Dubilier Model 3264 vibrator converter to furnish 115 volts a.c. A power supply, included as part of the radio equipment, converts the 115 volt a.c. to the proper transmitter and receiver plate and filament voltages.

This radio project was planned and constructed by Missouri Pacific forces under the direction of W. Rogers, superintendent of telegraph, R. A. Hendrie is assistant superintendent of telegraph, and L. E. Verbarg is telephone engineer in direct charge of this construction.

**Below**—The yardmaster sits in his office and uses his radio to talk with switching crews working anywhere within a seven-mile radius. **Right**—The trainmaster uses a portable radio walkie-talkie to call the office or any of the switching crews



# Otis Elevator Helps Ease Car Shortage

**Placards placed in cars unloaded and cleaned by Otis reach many shippers monthly—Expense is negligible**



This was what was left in one end of a car unloaded at the elevator company's Yonkers plant

For about four months the Otis Elevator Company, led by its general traffic manager, C. E. Coyle, has been engaged in a campaign aimed at persuading other industries to clean freight cars before turning them back to the railroads as empties. A *Railway Age* editor asked Mr. Coyle to explain just what Otis is doing to get other shippers to turn out clean empties. A summary of this talk with Mr. Coyle follows:

**Reporter**—Mr. Coyle, just what does Otis do to try to get other firms to clean cars which are released as empties? What is your program?

**Mr. Coyle**—It's quite simple. In each car unloaded by us and turned back to the railroad empty, we place a large placard which tells whoever gets the car for loading that Otis cleaned the car after unloading. The poster further suggests that the shipper who sees the placard help himself—and the railroads—by cleaning cars which he empties. We hope that we'll embarrass some people into cleaning the cars which they make empty.

**Reporter**—Why do you clean cars when so many other receivers leave that job to the railroads?

**Mr. Coyle**—Well, car supply is vital to me as a shipper and receiver. We shippers can help the railroads do a lot better job of making the present supply of cars go round. One of the best means of accomplishing that result is by turning back to the railroads clean empties. Every time a receiver turns over to the railroads a car which contains a lot of debris, that car is out of service for at least three days while the railroad cleans it. Therefore, if a receiver turns out 10 debris-laden cars per day, 5 days a week, at least 150 car-days are lost. In these days we can't afford that loss.

**Reporter**—The railroads have been saying that for many years. But some traffic men say that their expense in cleaning cars would be prohibitive. What's your answer to that?

**Mr. Coyle**—At our two plants [Yonkers, N. Y., and Harrison, N. J.] we unload 250 or more cars each month. About 75 per cent of them we turn back to the railroads after unloading and cleaning. Frankly, we find the cleaning expense is negligible, despite the fact that there is a lot of blocking and strapping in the cars, most of which are gondolas. With all the switching and other factors which must be taken into account in the railroads' cost of cleaning a car, I know that we can clean them a lot cheaper than can the railroads. And there's no use in kidding ourselves, we pay the cost in one way or another. If all of us receivers did the cleaning of the cars, we, and the railroads, would be a lot better off financially. If you think of the railroads' tremendous cleaning bill, and the extra investment in equipment necessary because of time wasted in cleaning, you'll see what I mean. Incidentally, the cost of each of our placards is less than 10 cents.

**Reporter**—With what success is your program meeting?

**Mr. Coyle**—It's hard to tell. However, since we started this thing in late October 1950 quite a lot of interest has developed. Several traffic managers have told me that they were going to do something similar. The railroads, the Association of American Railroads, and several Shippers Advisory Boards also are spreading the gospel. The only thing we know definitely is that we're reaching many shippers each month. And incidentally, you can say that recently we also began putting the placards in cars we're loading outbound. We hope that will do some good, too.

**Reporter**—What would you think of the idea of a "clean car month" campaign?

**Mr. Coyle**—I'm against it. The shippers' own best interests dictate a year-round clean car campaign. Let's not have a lot of hoopla one month a year and then forget all about the subject for the other 11 months. It's an all-year program with us at Otis.



BEFORE LONG THIS IS  
THE WAY THE CAR  
LOOKED

OTIS FINISHED THE  
JOB BY PUTTING THE  
PLACARD ON THE SIDE  
WALL



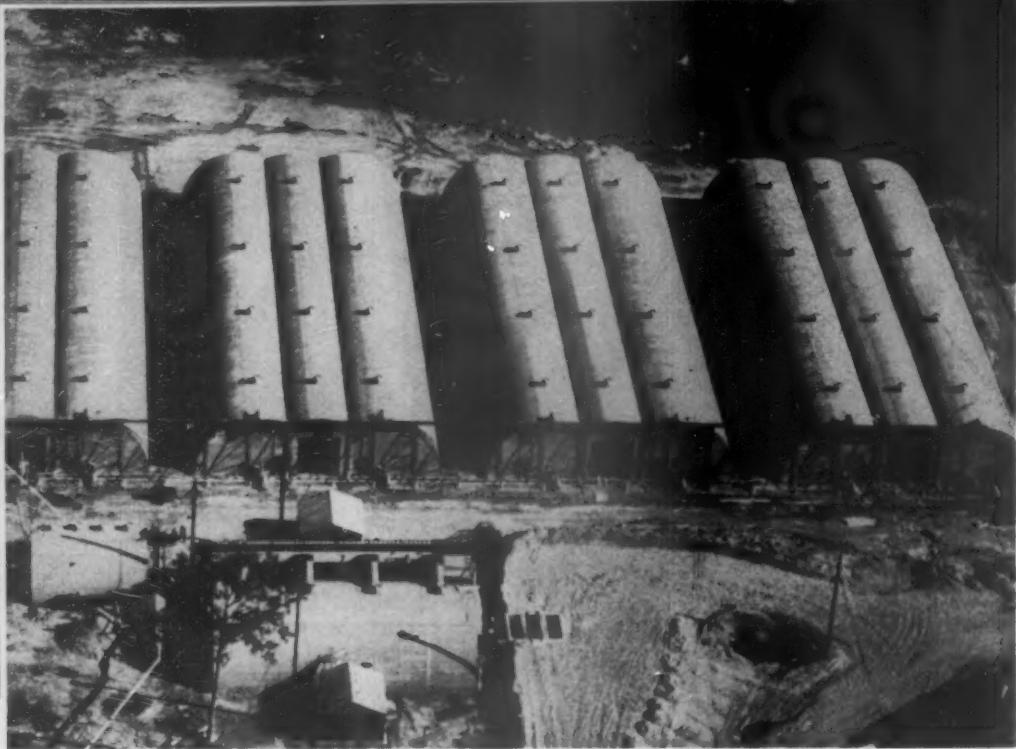
COOPERATING WITH RAILROAD AND INDUSTRY

**AFTER UNLOADING, WE CLEANED  
THIS FREIGHT CAR AND MADE IT  
READY TO RECEIVE ITS NEXT LOAD..  
..SPEEDING ITS SERVICE TO YOU.**

**"when empty..clean it for the next fella"**

IT SAVES TIME, HELPS YOU, HELPS INDUSTRY...  
AND HELPS THE RAILROADS RELIEVE THE  
CRITICAL CAR SHORTAGE.

**OTIS ELEVATOR COMPANY**  
NEW YORK, NEW YORK



Air-view of the 600,000-bushel grain drying and storage plant on the Norfolk Southern's line at Glen Rock, Va., in the Norfolk area. The facility, privately financed by the Tidewater Regional Market, Inc., a growers' cooperative, enables the area's grain growers to store their crop locally until they sell it or use it for feed. Heretofore, growers have had to sell immediately, whatever the current market price. The six Quonset buildings housing the plant were manufactured by the Stran-Steel division of the Great Lakes Steel Corporation

## Improved Grain Shipping Facility on Norfolk Southern

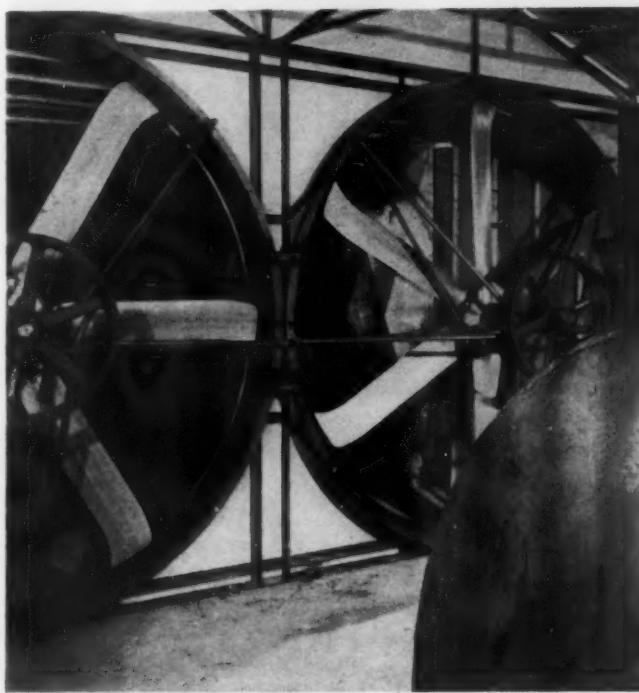
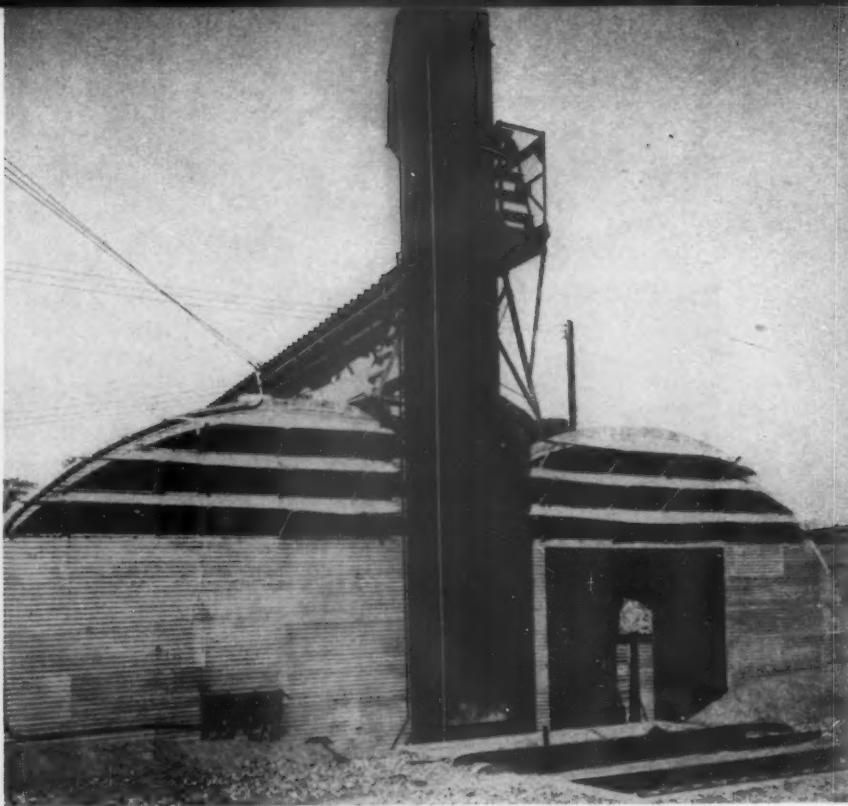
All grain moving by rail through the large grain drying and storage plant recently completed at Glen Rock, Va. (near Norfolk), must move in line haul service over the Norfolk Southern, the only carrier servicing the facility. It is estimated that initial rail grain movement through the plant will approximate 18,480 tons a year, producing revenue of about \$21,450. This annual rate is expected to increase progressively to about 67,200 tons, with revenue of \$78,000. The accompanying photographs indicate the method of operation at the facility.



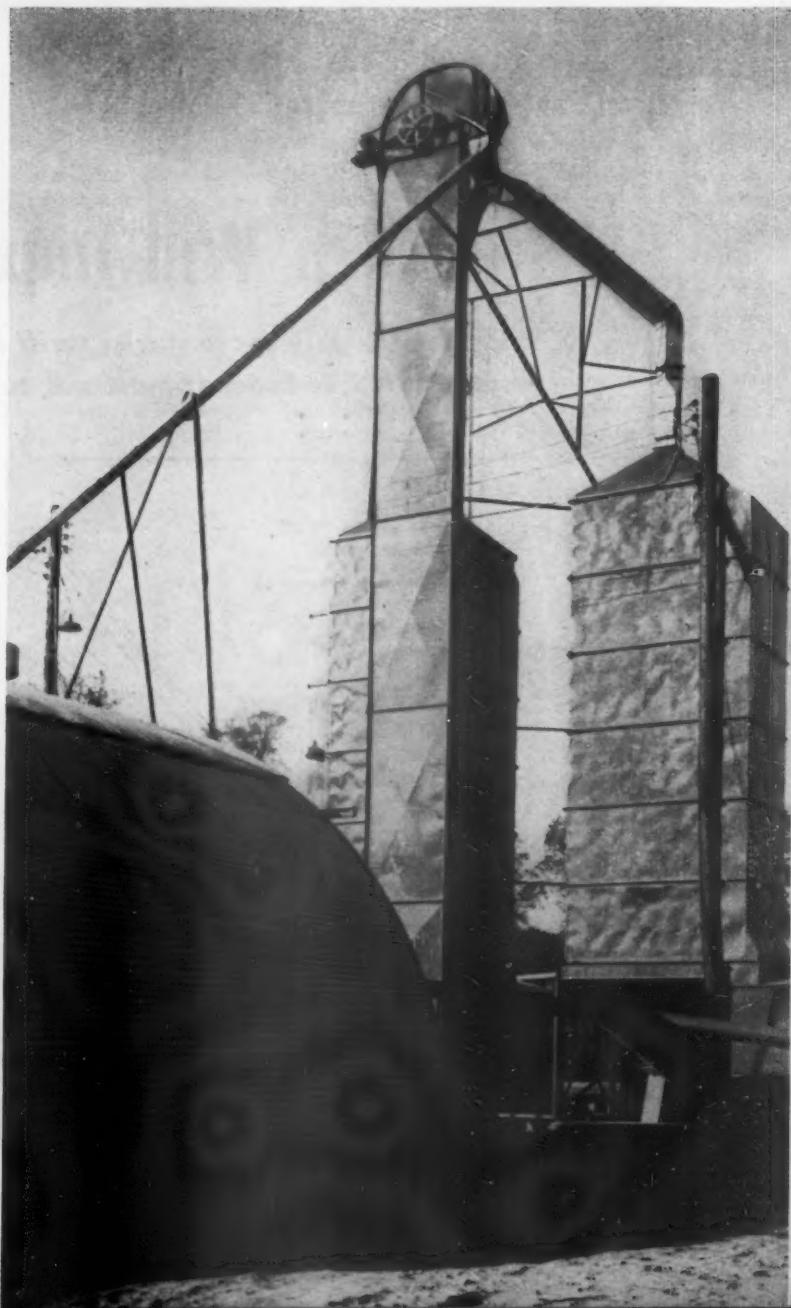
Interior of one of the storage buildings. Tunnel in background cools grain by providing air circulation through piles and also houses conveyor by which grain is removed. Each building has two tunnels

Four of these 60-ft. by 80-ft. multiple-arch Quonset buildings are used for storage. The overhead conveyor brings in shelled corn from the drying plant. Grain is removed by an underground reclaim conveyor operating in tunnels through buildings and pit seen in lower foreground

This building houses what is said to be the world's largest ear-corn drier. The drier can reduce moisture content of 10,000 bushels of ear-corn by 5 per cent in 24 hours. Incoming corn is dumped from trucks into pit in foreground, elevated by conveyor operating up center stack and dropped through roof hatches by overhead conveyor. Special endwall openings provide for escape of moisture-laden warm air

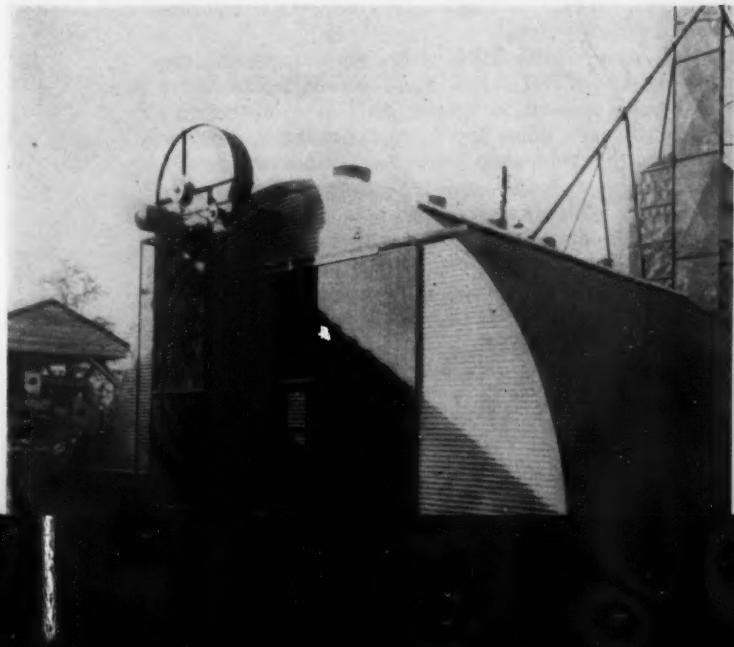


Ear-corn is dried at the plant by four fans driving warm air through the piled corn. Each fan is rated at 100,000 cu. ft. a minute. At the right is an oil-fired furnace which heats air driven by the fans



Bulk grain driers at the plant (right)

Temporary housing for newly shelled corn is provided by this 32-ft. by 36-ft. building. Two shellers, each delivering 1,200 bushels an hour, are under the shed at left. Temporary storage is required pending processing through two bulk grain driers at rear of building. The bulk drying capacity is 450 bushels an hour





## Research Will Improve Freight Tariffs

**Shippers offer services to carrier tariff improvement group—Full-time board suggested by N.I.T. League; must not contain "biased" or "tradition-bound" men**

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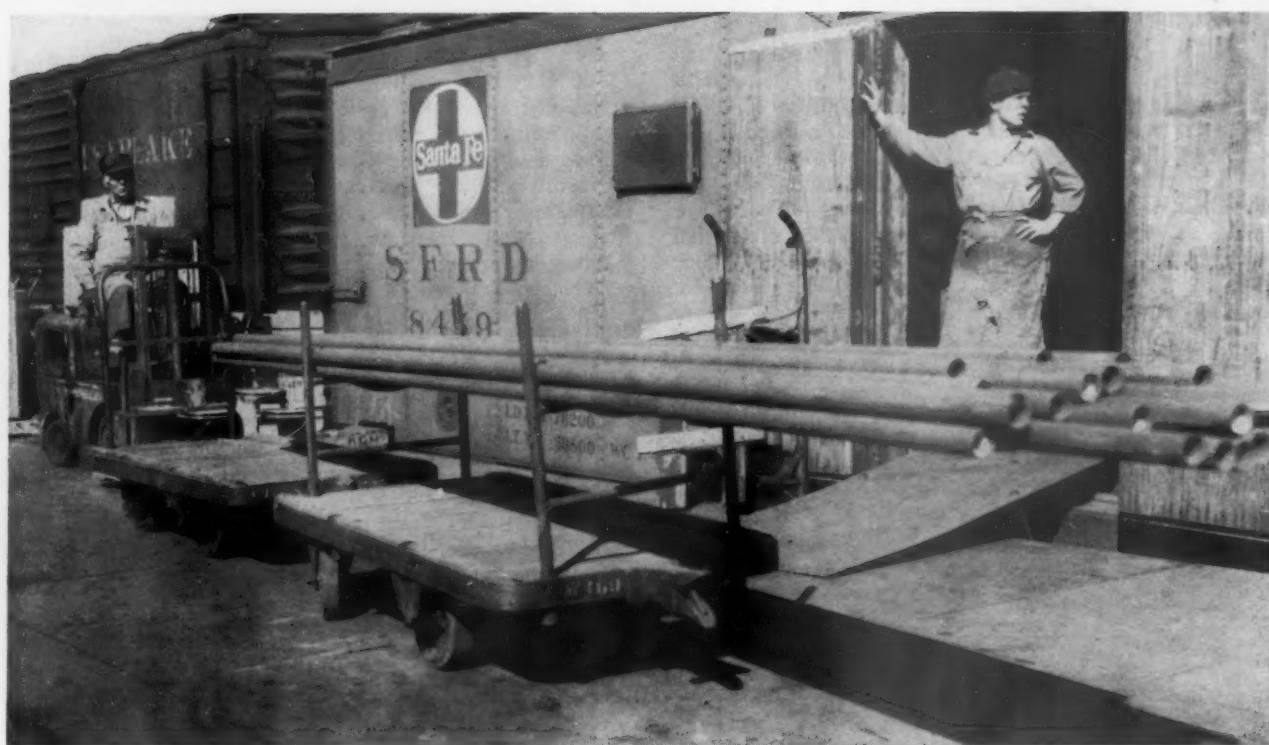
By **J. W. PETERS**,  
Traffic Manager  
Delco-Remy Division  
General Motors Corporation



In addition to his duties as traffic manager of the Delco-Remy Division of General Motors, Mr. Peters is chairman of the National Industrial Traffic League's Rate Construction and Tariff Committee

Much has been said and written in recent years concerning the condition of railroad freight tariffs and the need for their improvement in order that much of the doubt concerning their purpose and intent might be dispelled. Many adjectives have been used to describe in ironical or facetious language the present rail tariffs. The length to which some people have gone to use these descriptive adjectives would seem to point up the feeling of futility on the part of many users of tariffs in their hope for any real tariff improvement. Nevertheless, there is reason to hope for tariff improvement in the years ahead.

There is a wide difference of opinion concerning the reasons for the present chaotic condition of tariffs. Some persons highly placed in carrier circles seriously contend that if and when the carriers absorb into the basic scales the percentage increases authorized in Ex Parte 162, 166 and 168 and reissue their class tariffs in conformity with whatever the final order may be in Dockets 28300 and 28310, all tariff troubles will be ended and all complaints concerning tariffs answered. Since most of our serious troubles stem not from having to seek rates in several supplements, but rather



from not knowing where to find the applicable rate, nothing could be further from a satisfactory answer to the problem, say the vast majority of the tariff users—and many of the tariff publishers.

#### **"Go to the Root of Trouble"**

To provide real tariff improvement it is necessary to go to the root of our present troubles and to examine the reasons for them. First, in order to establish a basis for comparison, let us understand that we do have a fairly simple tariff in everyday use, issued by the Railway Express Agency. To determine rates between most points requires only a minute or two. Surely this is almost too easy to be real. Well, it is real, but not realistic. Express rates move only emergency or high class, high value shipments.

When our transportation system was young it moved mostly heavy loading basic products of the land and mine. Then there was a simple system of rates—perhaps even more simple than present Railway Express tariffs. As industry developed and put to more complex use the products of land and mine, the rail transportation system grew and so did the variety of freight tariffs. Competition between carriers, communities and industries also grew, with each one seeking to obtain advantages over the other. The products of industry multiplied and expanded so that we have developed, over the past forty years, an exceedingly complex variety of traffic which quite naturally could not be transported at charges set out in simple rate tables. Hence commodity rates came into being. Commodity rates were—and are—essential to the development and maintenance of a vigorous industrial economy. The descriptions of commodities and territories; the provision of routes and services; the maintenance of competition and competitive forms of transportation have all had a hand in the continuing complex development of commodity tariffs.

Regulation by states and the federal government has contributed greatly to tariff complexity. Rules and regulations always tend to produce complexities, and when such rules and regulations remain static for years there is created a vacuum in which progress is arrested and halted. For example, our present Tariff Circular was issued in 1928!

Then there is the confusion and ambiguity caused by orders of regulatory bodies. We are told of an experience several years ago of a chief traffic officer of one of our western railroads. His road had received an order from the Interstate Commerce Commission in a certain case with instructions to publish a certain rate and rule. The language in the order was so involved that the railroad's tariff bureau did not know just what

#### **Railway Express Agency**

INCORPORATED  
In Connection with  
CANADIAN NATIONAL RAILWAYS (Express Department)  
CANADIAN PACIFIC EXPRESS COMPANY

#### **LOCAL AND JOINT SCHEDULE**

#### **FIRST AND SECOND-CLASS EXPRESS RATES**

**No. 12**

(Circular No. 71)

Governed by and applying in connection with Local and Joint Block Tariffs issued subject thereto.  
Governed by and applying in connection with Joint Directory of Express Stations I. C. C. No. A-3, ME-1, C. C. No. 3, C. T. C. No. 4, and State numbers assigned thereto.  
Governed by Official Express Classification No. M, I. C. C. No. 1920, ME-1, C. C. No. 1980, C. T. C. No. 2110 and State numbers assigned thereto.  
Governed by and Joint Tariff of Canadian and American Express Companies I. C. C. No. 1981, ME-1, C. C. No. 1979, C. T. C. No. 2109 and State numbers assigned thereto. Supplements thereto and subsequent issues thereof.  
Governed by and applying in connection with Joint Directory of Collection and Delivery Limits at Express Stations, I. C. C. No. A-4, ME-2, C. C. No. 2000, C. T. C. No. 2120 and State numbers assigned thereto.

Rates published in this tariff will also apply on local express rates applicable wholly over the lines of one or more of the following Companies: the Railway Express Agency, Incorporated, Canadian National Railways (Express Department) and Canadian Pacific Express Company, for transportation within the United States by such Express Companies wholly by motor vehicle.

MASSACHUSETTS 107

**Shippers recognize that nothing quite so simple as the method used by Railway Express is practicable for application to the railroads' freight tariffs**

it meant, but to be certain that it complied with the order, it published the exact language in the tariff. Shortly thereafter word was received from the commission that because the language was so ambiguous, it was difficult to determine just what was meant. The chief of the tariff bureau boarded a train, went to Washington and explained to the commission's suspension board that, in the tariff in question, the carrier had used the exact language of the commission!

We come to the conclusion then that while we cannot have freight tariffs as simple as express tariffs, if we are to provide transportation that will foster and develop industry, we must have rules and rates for transporting industry's products published in modern understandable English, and we must keep up-to-date in our rules and regulations governing the publication of tariffs. This is the joint task of rail carriers, the Interstate Commerce Commission and the users of rail transportation. The question is, how best to proceed?

One group of intensely interested men have what they consider the one and only hope for arriving at

some approach to the problem of tariff improvement. The Rate Construction and Tariffs Committee of the National Industrial Traffic League has been giving this problem serious consideration for several years. They have had conferences with individual carriers' traffic executives, the Association of American Railroads' Freight Tariff Committee, individual tariff publishing agents, and numerous users of freight tariffs. Out of these conferences has come the suggestion of the Rate Construction and Tariffs Committee, made formally to the various railroad traffic groups, that the railroads establish a small research group to study the problem of tariff improvement. This group would devote its entire time and energy to that task, and continue on the project until its objectives have been accomplished. These objectives, and the manner of reaching them, are to be set up after consultation with tariff users, both rail and industrial, and will necessarily involve radical departures from present methods of rate publication. Without doubt, also, the research group will need assistance from the Interstate Commerce Commission, including a

## Unloading Copra On the Southern



Cars being loaded adjacent to the pier. The conveyor pipes bring the copra from the ship to this power unit where it is distributed and blown into the railroad cars

### **Special facilities at Port Chalmette reduce unloading time and improve handling**

The movement of copra (dried coconut meat) from Port Chalmette, at New Orleans, to the Procter & Gamble plants at Ivorydale (Cincinnati), Ohio, has been an important source of traffic to the Southern for many years. The chief difficulty encountered in this movement used to be the time and expense involved in getting the product from the ship's hold into railroad cars. To provide better service for this operation (and to keep the traffic on its lines), some years ago the Southern installed an extensive pneumatic conveyor system at Port Chalmette, specifically designed for the handling of copra. Time has proved the wisdom of this investment — both to Procter & Gamble and to the Southern.

Copra is dried coconut meat from which oil is pressed for use in the manufacture of soap. It arrives tightly packed in the steamer holds, and must be transferred to box cars with grain doors for movement overland to Cincinnati.

Unloading is accomplished by using the pneumatic conveyor — which is very much like a huge vacuum cleaner — to suck the copra from the ship's hold and blow it into the box cars. Longshoremen, wielding picks and shovels, loosen the closely packed copra so that it will move easily through the conveyor.

Prior to the arrival of a steamer with a new shipment, the Southern begins assembling suitable box cars, equipping them with grain doors, weighing and spotting them adjacent to the conveyor. Within an hour of the time a ship docks, copra is rattling through the conveyor and into the waiting cars. Unloading continues 23 hours a day, with only an hour's time to switch out loaded cars and switch in empties. Delaying a steamer at a dock can result in demurrage charges of thousands of dollars a day.

revision of the Tariff Circular, and quite likely some legislative assistance from Congress. The Rate Construction and Tariffs Committee of the N.I.T. League has offered the services of its organization to assist in this program.

#### A Full-Time Job

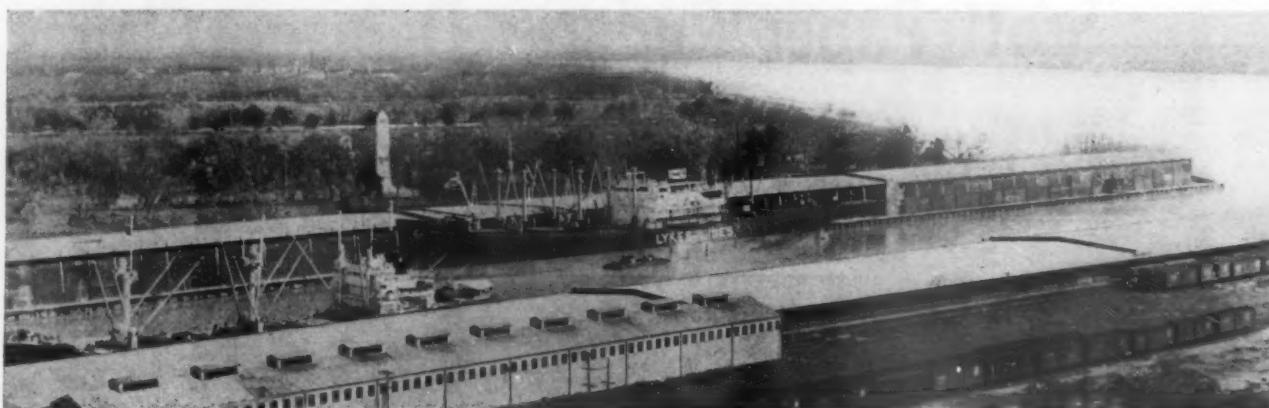
It is the opinion of those who have given much thought to this problem of tariff improvement that the task is too large, the issues too involved and the time required for thoughtful study too great for anyone or any group to attempt handling on a part-time basis. No man can serve two masters. Constructive thinking cannot be done by a mind burdened with administrative responsibilities or charged with routine duties. Only by open and single-mindedness can we hope to bring order out of our tariff chaos.

Industry has developed and produced its most outstanding improvements and new products through research. Industrial research is on a selective basis.

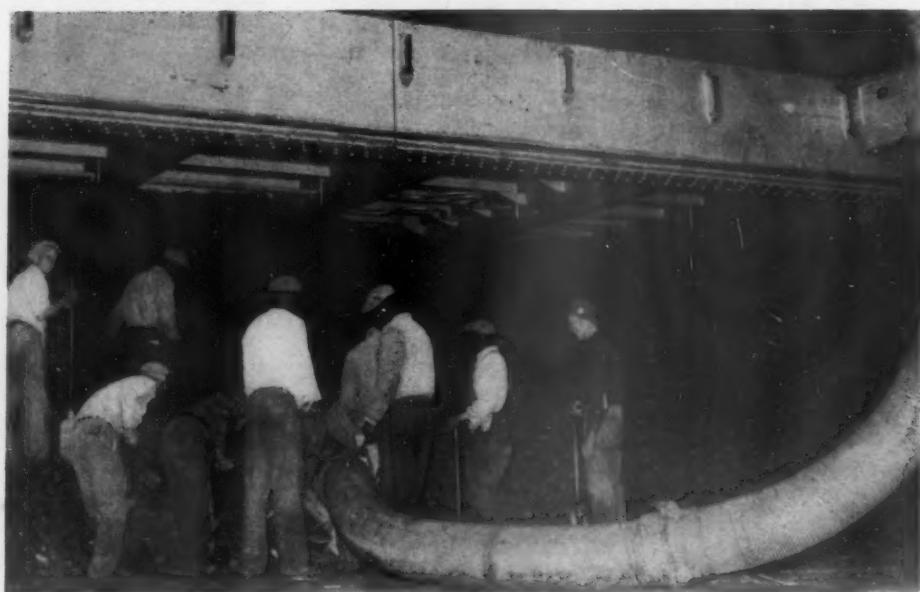
If research made possible our industrial achievements there is positive proof that research conducted by men whose mental approach to the problem will not be biased or bound by tradition, will make possible the long and greatly needed improvement in our freight tariffs.

That this suggestion did not fall on deaf ears is attested by the action of the chief traffic officers in each of the three major rate jurisdictions. Subcommittees of railroad men from each area have been appointed to meet with similar groups from the Rate Construction and Tariffs Committee of the National Industrial Traffic League, for the express purpose of exploring further their proposal for a research group.

Relying upon the spectacular results obtained by industry through research, the respectful interest shown by the chief traffic officers in the three major rate jurisdictions, individual approval by tariff publishing agents, and strong tariff user support, the conclusion must be reached that we can, and will, secure tariff reform and improvement through a research group set up for that purpose by the rail carriers of the United States.



Port Chalmette (near New Orleans) with a steamer unloading copra at the far dock. The conveyor pipes carrying the copra from the steamer to the railroad cars behind the shed structure are barely visible running across the dock roof beyond the ship



Longshoremen loosening the packed copra in a ship's hold. The pipe in the foreground is the conveyor which transfers the copra to the freight cars



Aerial view of Scott Paper Company's main plant in Chester, Pa. Delaware river is in the background

## Scott Paper Reduces Damage Claims

***Traffic department spearheads campaign which stems from company's resolve to have products "look like quality when they arrive at destination" —Credit goes to men on loading platforms, says Scott traffic department***

Back in 1948, Scott Paper Company, Chester, Pa., launched an ambitious program to pare its over, short and damage (to freight) losses to an absolute minimum. How successful the program has been is reflected in figures that show an overall 38 per cent decrease in damage claims during the past three years. Scott's losses have dropped to less than two-tenths of one per cent of its freight bill. Scott's traffic officers agree that several factors were responsible for the success of the company's "stop loss and damage" program. They attribute most of the improvement in their shipping record to wholehearted support and cooperation of the men on the loading platforms. Scott's management feels that the success of this campaign is proof positive of what can be accomplished when men understand their jobs and the place those jobs occupy in the general operation of the company.

Scott Paper — manufacturers of toilet tissues, paper towels, facial tissues, wax paper and windshield wiping tissues — considers that its shipping record prior to 1948 was a good one. However, in what Scott calls its "Consumer Concept" is the realization that highest quality at the lowest possible price is necessary if the company is to be successful in merchandising its products. Carrying this logic one step farther, it follows, says John J. Inch, Scott's director of traffic, that "Scott tissues have to look like quality when they arrive at their des-

tinyation. That's why we'll continue to work for perfect shipping 12 months a year."

The vehicle for Scott's year-round perfect shipping program is the Interplant Shipping Contest, conducted among the shipping departments of six mills, and born of the necessity to encourage shipping crews already doing a good job to do even better. A "league" has been formed in which each shipping team's performance and standing is measured by averages. The average for each team is computed by taking the total number of cases shipped, subtracting the number reported damaged and dividing the difference by the total number shipped. The contest, begun in 1948, caught on immediately. Friendly but serious competition has marked every step of the contest's three year history, with all eyes continually on the scoreboard hanging near each of the shipping departments. At the end of every year the mill whose losses from damage and/or over and short are lowest is feted at a banquet and awarded a plaque which it keeps until the following year.

The contest receives publicity from notices sent to all interested parties in the various mills, and from informative bulletin board announcements. Star performer on these notices is a little fellow named "Casey," a caricature of a case of Scott merchandise, whose antics liven the announcements and whose instructive talents have been utilized to teach shippers correct methods

Finished cases of Scott products travel past railroad cars in new shipping and storage building on endless conveyors. New building, placed into operation January, accommodates 16 cars



in case handling and loading. (See illustration.) Further publicity comes from close coverage of the contest's progress by the monthly newspaper published for Scott employees.

As a prelude to the interplant contest, the traffic department spent several weeks in a thoroughgoing analysis of claim records by mills, methods of shipment, products, routes, destinations and causes of damage. Facts began to fall into place almost immediately and by the time this study was completed the traffic men had a clear picture of many of the causes of damage and some excellent ideas for their elimination. These were put into operation quickly. First, all shipping personnel were oriented in the major causes of damage and incorrect load counts. Each man in the department had the importance of his job explained and its relation to a sound shipping program illustrated. "One of the most important phases of the contest is in 'telling all' to the men who actually do the work," maintains O. H. Miller, assistant director of traffic. "That way they take a personal interest and invariably do a better job."

#### Inspecting Cars

Scott then turned full attention to the actual causes of damage and the steps necessary to remove them. In the shipment of paper, one of the most harassing problems

is dampness, the fault of improperly weather-sealed railroad cars. To combat this, efforts to discover bad cars were intensified and those found not suitable for transporting paper were rejected. Car screening continues to be an important day-to-day function.

Cases torn in transit were another headache for Scott's shipping department. Again, car inspections by shipping department personnel were stepped up. Each loader was provided with tools to *remove* — not drive in — nails and other protruding objects. Anchor plates and steel strappings, major offenders in tearing, were removed whenever it was possible, or they were padded with corrugated board. All rough door posts were padded for further insurance. The net result was an encouraging reduction in damages from these causes.

Crushed cases had long been a source of annoyance for Scott and the problem was given a lot of attention. Loose loads, one of the most important causes of crushed cases, had been quite consistently avoided by Scott's shipping department for the past fifteen years through the use of planned carloading and carload diagrams which not only insure tight loads and correct count, but facilitate unloading at the point of destination. Despite their success in the past, however, old carload diagrams and carloading systems were revised or remodeled from more recent information available on carloading. In efforts to do away with crushing, Scott received excellent support from the railroads, which

Carload diagrams insure both tight load and proper count. Diagrams, placed in doorway, expedite unloading for consignee. Damage from shifting of cases in doorway area was materially reduced by spot-gluing, which reduces internal movement





Far left — Carload diagram (top) and stop-off car poster (two per car) are an important part of Scott's program to perfect shipping. Poster is changed frequently to command attention

Left—"Treat Me Nice" brochure, a joint product of the advertising and traffic departments, was mailed to pool car distributors and given to wholesale jobbers by Scott salesmen. It shows most of the common handling errors which result in damage. Object is to insure that Scott products placed on shelves are in good shape. "Casey" has received much favorable attention



Two methods of publicizing Scott's Interplant Shipping Contest. Newspaper goes to all Scott employees, and O. S. & D. report is directed to all traffic and shipping personnel as well as top management

sent representatives to counsel with the traffic and shipping departments and Scott's packaging engineers on the normal hazards merchandise would be expected to meet in transit. The railroads also made impact recorders available to Scott to check unusual shocks and the total effect of evidence from these recorders and advice from railroad shipping experts was incorporated in the redesign of several of Scott's shipping containers.

When a new loading technique was tried, representatives of the traffic and shipping departments went on field trips to the points of destination armed with cameras. Damage recorded in pictures became the object of further study and the evidence was shown to the shipping personnel in order to familiarize them with causes and effects.

Scott's packaging engineers also contributed their bit to the prevention program. They ran exhaustive tests on strength and stress of the shipping cases and were

able to recommend the most effective way for cases to be placed in the cars. Perhaps their most effective contribution, however, has been a careful and scientific test of cases as they come into Scott from suppliers to make sure that they measure up to strength specifications.

#### Consignee Instructed Too

Scott's efforts could not be limited to work with its own shipping departments if the overall program was to be a success. Stop-off cars had for some time proved to be repeated offenders in producing damaged cases and incorrect counts. The problem was, of course, to educate the personnel at the stop-off point, since their failure to count carefully and level the load properly meant trouble at the final destination. To meet the problem the traffic men called on the advertising department for an assist, and the result was a colorful poster which reminded unloaders at the stop-off point that the car should be recounted and leveled after removal of their share of the load. The poster — which is changed frequently to command new attention — is attached to the wall on each side of the car. Consignee cooperation since the first use of the poster has been even better than Scott had hoped. As O. H. Miller puts it, "When they know you're trying to do a job, they seem quite willing to go along." That intermediate consignees have "gone along" is proved, Scott believes, by the 1950 decrease of 41 per cent, compared with 1948, in the number of cases damaged in stop-off cars.

Thus, the main threats to effective shipping were met one by one and overcome at least in part. And as the program has developed over the last three years, Scott has reaped benefits other than those to which the idea was originally dedicated. The company has secured improved customer relations by eliminating the headaches involved in remedying errors in count and adjusting claims for damage. Another direct benefit of the program is the reduction in the amount of time spent in handling claims.

Scott found, too, that it made valuable gains in its relations with the carriers, a benefit which would pay dividends in reciprocal good service from the railroads.

Scott Paper recognizes areas for further improvement and is determined to attack them with the same intensity that has characterized the program thus far.



S. P. "Shasta Daylight" entering the Cantara loop near the base of Mt. Shasta

## Moving Transcontinental Trains With Diesel Power

By J. W. CORBETT

Vice-President Operation, Southern Pacific Company  
San Francisco, Cal.

**A timely discussion of the advantages of  
diesel-electric locomotives as demonstrated  
by experience on the Southern Pacific**

The shift from steam to diesel power, and the rapidity with which it has occurred and is taking place, is probably the most spectacular change in the railroad industry for many years. It is a change, too, for the better, despite the good-natured moans of oldtimers, who are the true pioneers of railroading, and those true rail fans who hate to see the passing of the romantic days of steam. We

This article is derived from an address at the November 16, 1950, meeting of the Pacific Railway Club at San Francisco, Cal.



A four-unit locomotive moving a freight train on the Lucin cut-off across Great Salt Lake, Utah

all instinctively feel that the years of the steam locomotive are numbered, and we also know that this will not mean the end of the romance of railroading.

Diesels can outpull and outdistance steam locomotives, a fact which should thrill the hearts of all railroad men who take pride in performance and who wish to see railroading keep pace with progress. I am quite sure that most operating officers look back with a great deal of satisfaction to the advent of diesel locomotives in all types of service, including yards, local trains, through freight trains, and in transcontinental service.

#### Diesel Locomotive Advantages

The advantages of diesel power may be summarized in three words: speed, dependability, and economy. In addition, there are, of course, others like smooth riding, easier servicing, and increased availability. There would be no "Super Chief," or "Zephyr," or "City of San Francisco" streamliners as they are known today if it were not for diesels. The best regularly scheduled time of steam-powered trains between San Francisco and Chicago is 48 hours. Diesel-powered streamliners can do it in 39½ hours, a saving of 8½ hours.

This saving is effected not so much by higher top speeds as by higher sustained speeds. The diesels do not stop so often for servicing, nor do the diesel-powered trains have to stop and change engines or cut in and cut out so many helpers. The diesels may and usually do run all the way through on the territory of the owning railroads and can take all but the steepest grades without help.

In addition to the faster schedules, they make for better and smoother train handling, all of which have made it possible for the railroads to attract new business and retain considerable transcontinental passenger business which would, no doubt, have gravitated to other forms of transportation. These faster schedules, too, often make it possible to take care of certain trains with one less set of equipment, which is an important consideration in view of the present high cost of passenger cars.

In transcontinental freight service, the superior sus-

tained speeds of trains handled by diesel locomotives make it possible to maintain the fast schedules of perishable and manifest freight trains with greater dependability. The economies of diesel operation in both passenger and freight service have been helpful in offsetting to some extent ever-increasing operating costs and thus holding to a minimum the requests for further increases in freight and passenger rates that might result in siphoning off additional business to other forms of transportation.

#### Higher First Cost Justified

Although diesel locomotives have a much higher initial cost, they do more work on a dollar's worth of fuel than do steam engines. Their maintenance costs are much lower, and they are out of service for repairs for much shorter periods. They are also labor-saving devices, enabling fewer men to do more work—but like other labor-saving devices which have revolutionized industry in the past, ultimately they should create more jobs on the railroads by attracting more business to the rails. Improved service is always in demand.

The Southern Pacific's first experience with diesel locomotives was in 1936 with the Union Pacific and the Chicago & North Western on the "City of San Francisco" streamliner. It was, however, three years later before we considered diesels far enough advanced to warrant heavy investments in them. We started buying diesel switch engines, and once started we expanded rapidly, soon becoming one of the largest operators of diesel switchers in the United States, a distinction that was held for several years.

The diesel is particularly adapted to switching because of its instant availability, day or night, and because electric drive allows it to apply full power to its wheels at the moment of starting. It does not lose time being fueled and serviced. It makes possible smoother switching, thus reducing damage to lading.

One basic advantage of diesel locomotives today, as in the past, is a high degree of fuel efficiency. Diesels produce 1,000 gross ton-miles of service with just a little over two gallons of diesel fuel oil. This is 500 ton-miles to the gallon, compared to which the average automobile produces only 20 or 30 ton-miles to a gallon of gasoline, and a four-engine cargo airplane produces 8 to 14 ton-miles on a gallon of high-octane gasoline. A tankful of 5,000 gal. of diesel fuel will take a 100-car train 500 miles.

The Southern Pacific delayed somewhat in using diesel power on main-line freight trains, but has been making up for the slow start by heavy purchases since the war. After satisfactory experience with the Electro-Motive F-3 6,000-hp. experimental diesel in freight service and studies confirmed its operating advantages, a program of main-line dieselization was launched beginning on October 12, 1946, with an order for 20 locomotives of 6,000 hp. each.

These first freight diesels were assigned to the territory where it was thought they would effect the greatest economies in comparison with existing steam power, such as through freight service between Los Angeles and Lordsburg, N. M., an important part of our southern transcontinental lines.

Experience justified our expectations. The diesels reduced helper service substantially and made such long runs without servicing that it was possible to reduce servicing operations at some intermediate terminals. Also, the water problem with diesels in this comparatively dry country was less than with steam locomotives.

It was soon apparent that important savings could be made in other territories. More of the new locomotives were purchased, until by the end of this year (1950) we will have 120 of the 6,000-hp. main-line freight diesels

in use, on almost all our main lines, including every one of the four transcontinental routes.

A substantial number of these 6,000-hp. freight diesels have been assigned to operate on the overland transcontinental route to Ogden, Utah. Shortly, there will be a total of 43 operating in pool service from Roseville, Cal., to Ogden, a distance of 676 miles. Other than for helper service, which for the present will be handled by steam locomotives, most of the through train service will be handled by diesels. Under normal operations for this run, diesels will be fueled only once en route.

In the Southern district, at present, there are a total of 27 of the freight diesels operating from Los Angeles to El Paso, Tex., a distance of 813 miles. Fuel, en route, is required at Tucson, Ariz.

The Texas & New Orleans meets our connection at El Paso, and now has 11 of the large freight diesels in service, El Paso to San Antonio, further expanding the diesel-operated train service on this transcontinental route.

In the meantime, our passenger diesel program has been increasing. Southern Pacific's most recently inaugurated diesel-powered streamliner in transcontinental service is the "Sunset Limited," operating between Los Angeles and New Orleans on a 42-hour schedule. That gives diesel-powered passenger service on our four transcontinental routes, including the "Shasta Daylight" and new "Cascade" on the Shasta Route and the "Golden State" streamliner operated jointly with the Rock Island on the route between Los Angeles and Chicago. Record-breaking schedules of these streamliners would have been impossible regularly but for diesel power.

#### Complete Dieselization

Ultimately Southern Pacific is aiming at complete dieselization. That is still some years in the future, because our many modern steam locomotives are still giving economical, efficient service. Our program is to retire the older and smaller steam engines first, retaining the larger and more modern ones or sending them to other territories to replace less efficient engines. This process is in progress all over our railroad, but until dieselization is complete there must necessarily be maintained facilities for servicing the two types of locomotives — steam and diesel. Gradually some of our steam facilities are being reduced and those for diesels increased.

An interesting sidelight in our diesel operating practices is that we maintain laboratories at the diesel shops for analysis of cooling water, analysis of lubricating oil, and other tests that can be made only in a properly equipped laboratory under the direction of a qualified technician.

Thanks to such advances in the science of railroading, we are able to operate 180,000 miles between engine overhauls in freight service and 400,000 miles in passenger service. This is in sharp contrast to the pioneer diesels, where seized pistons and burned-out bearings were all too frequent.

The change from steam to diesel power has meant the training of personnel in new skills, and in new habits of operation in train service. Approximately 150 of our men, including road foremen of engines and shop supervisors, have been sent to plants of diesel locomotive builders for intensive courses of instruction. They in turn instruct the enginemen and shopmen on the job.

The first diesel freight locomotives purchased by the Southern Pacific had a top speed of 65 miles an hour—15 miles over our freight-train speed limit—and a maximum continuous pull of 130,000 lb. tractive force. Studies indicated that better performance could be obtained with a lower gear ratio. Accordingly, one locomotive was con-

verted, and a series of dynamometer tests were made. With the lower gear ratio we had a potential top speed of 55 m.p.h. and a continuous pull of 170,000 lb. which was an increase of 31 per cent in hauling capacity. Further refinements by the manufacturer have increased the continuous tractive force to 209,000 lb. on later locomotives.

A complete locomotive weighs approximately 936,000 lb. Attractive force of 209,000 lb. is approximately 22 per cent of this weight, which is very close to the maximum adhesion that can be maintained by a steel wheel on a steel rail.

This increase in tractive force means that the manufacturers have increased power of the locomotives to the point where the hauling capacity is determined by weight and factor of adhesion, rather than by traction-motor capacity. As the tractive force has approached the limit of adhesion, considerable wheel slippage has been encountered, and as a result the diesel freight locomotives have become large users of sand to eliminate the slippage.

In addition to its great pulling power, the diesel locomotive offers the advantage of dynamic braking. The braking effect amounts on our freight locomotives to a retarding effort of 148,000 lb. at 14 m.p.h., and 104,000 lb. at 20 m.p.h., the speed at which the most difficult mountain grades are descended.

Roughly speaking, the locomotive can retard with the dynamic brake about the same tonnage it can pull up the same grade at the same speed. Where we use helpers on ascending grades, on the downgrade the diesel is called upon to retard a considerably heavier train than it could pull up the same grade and, therefore, the automatic air brake is used to supplement the dynamic brake. However, in many cases it is not necessary to use the air-brake retainers, as used in steam train operations. Not only is time required to set them, but also to release them at the bottom of the grade. The use of dynamic brakes has eliminated many of these stops to set up or turn down retainers, also intermediate stops to equalize wheel heat generated by the brake shoes, and has effected considerable saving in brake shoe and wheel wear.

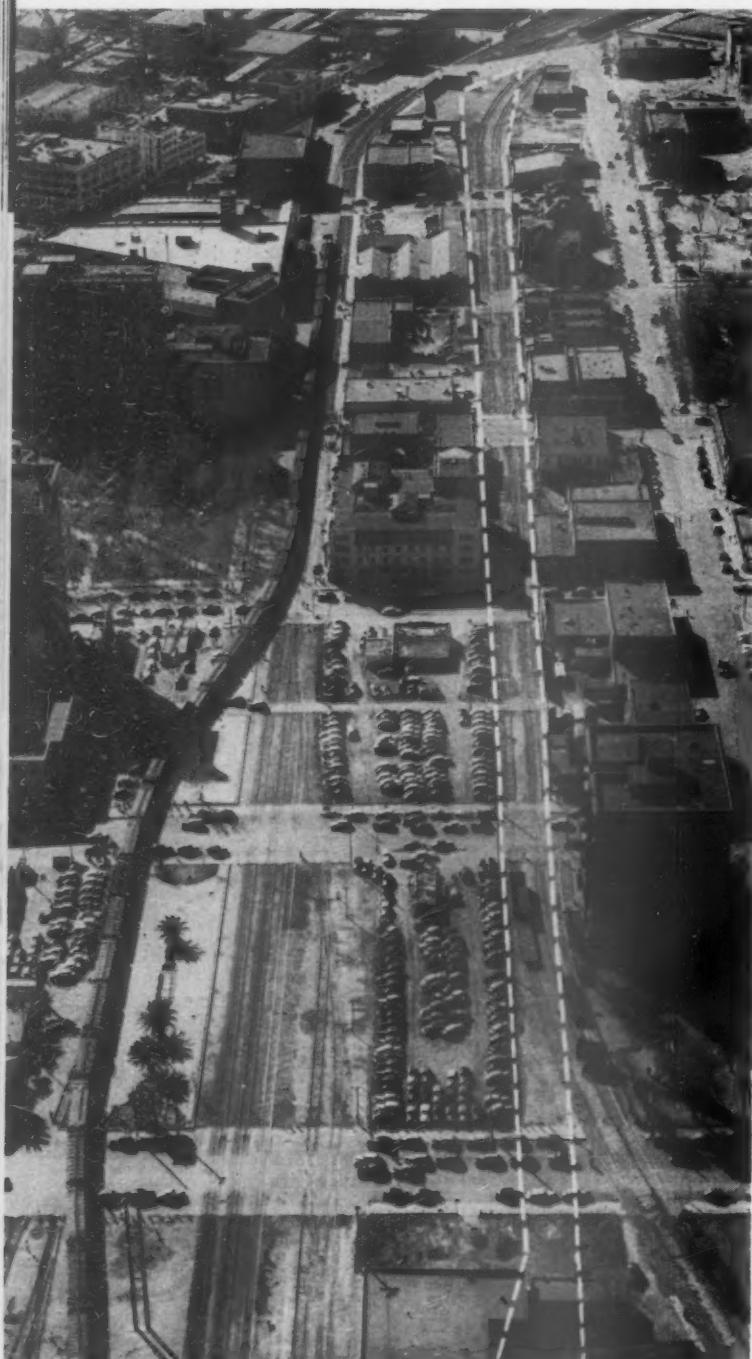
#### Improved Performance

There has been a marked improvement in the performance of passenger and freight trains powered by diesel locomotives. Although schedules for diesel-powered passenger trains have been considerably speeded in comparison to former schedules under steam power, it is rare today that diesel schedule failures occur. The performance of through, identified-manifest and perishable freight trains also is notably better since acquisition of diesel freight power. Fewer stops for servicing, for helpers, or for braking are important factors in getting the trains through on time, and with schedules maintained regularly, freight claims for loss of market automatically disappear. We expect that the overall performance of S. P. freight trains during 1950 will be the best since the end of the war, despite the fact that the volume of freight traffic this year has increased so that we now estimate it will be greater than in any other year in the history of our company, with the single exception of the peak war year, 1944.

From the facts stated, you can see why we are enthusiastic about diesel locomotives. However, we are keeping our minds open. Perhaps there are even better locomotives coming. We are watching with interest the development of gas-turbine locomotives. In this swiftly changing age, we must all keep pace. We will continue to buy new and better locomotives, and to work toward the continued improvement of trains, serving the growing west with the best practical transportation our investments can buy.

# Tracks at El Paso Put in "Big Ditch"

*Eight busy grade crossings eliminated by building a depressed trainway through the heart of the city*



Aerial view of downtown El Paso, taken before the depressed trainway was constructed. White broken lines along the existing railroad right of way at the right show outline of the new trainway

Like other growing cities, El Paso, Tex., has long been vexed with a knotty vehicular traffic problem that was aggravated by traffic delays where eight streets crossed at grade over two railroad rights of way of the Southern Pacific lines through the downtown area. The two rights of way paralleled each other through this district about 175 ft. apart, so that there were actually 16 crossings, all protected by flashing signals. From a traffic check made in 1946 by the police department on two successive days, it was found that the eight streets were used at these crossings by an average of 3,912 automobiles, buses and trucks in each of two 12-hour periods, and that an average of 61 train and switch-engine movements occurred in the same period over these streets, causing them to be blocked to public use for roughly 10 per cent of the time.

Many attempts had been made in the past to alleviate the bad crossing situation, not only by the citizens of El Paso but also by the railroads involved, which included the Southern Pacific Company, the Texas & New Orleans, the El Paso & Southwestern of Texas, the Texas & Pacific, and the El Paso Union Passenger Depot. Most of the plans advanced were abandoned as impracticable and no action was taken. However, from the plans presented, three—viz., track relocation, track elevation, and track depression—emerged as having merit for consideration, but the railroads, the city and the Texas Highway Department could not agree upon a satisfactory solution or a method for financing the work. Finally, in 1946, they all agreed to call on an outside engineering firm to make a study of the situation and to abide by the recommendation of that firm. De Leuw, Cather & Co., Chicago, was selected to make the study.

## Three Plans Studied

After investigating all possible means for alleviating the grade crossing situation, reviewing all plans that had been advanced, and making a detailed study of the three most promising solutions, the engineers submitted a report and recommendation in August, 1946.

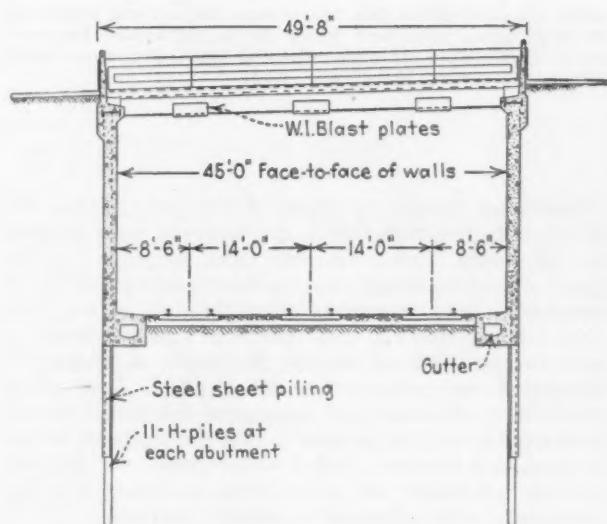
One proposal contemplated the relocation of the railroad yards and shops on a site two or three miles east of the city limits and the relocation of the through tracks on the south side of the city near the Rio Grande river. This plan was rejected because of its excessive cost (about \$9 million), longer mileage and greater operating costs for the S. P., a conflict of the new railroad right of way with that required for a new projected highway, the necessity of overcoming objections to moving many homes and business establishments from the new route, and the probability of the need for additional underpasses and overpasses as the city continued to grow.

The track-elevation plan, estimated to cost about \$5.1 million, proposed the consolidation of the two sets of tracks into one set of three tracks and elevating them



The "sand in the spinach" for El Paso's vehicular traffic was two railroad rights of way paralleling each other, 175 ft. apart, through the heart of the business district. Interference with traffic was overcome by constructing a depressed train-

way, one-half mile long, to carry three main tracks, and constructing overpasses for eight city streets. Another long overpass was constructed to carry a main thoroughfare, Cotton avenue, over the east end of the yards



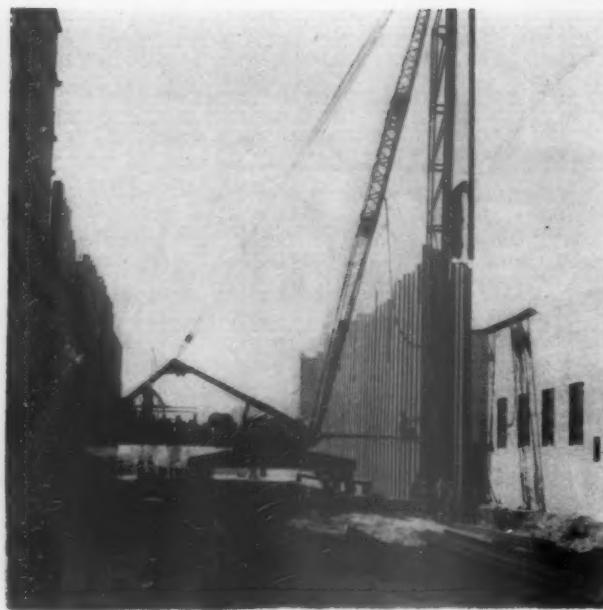
Typical cross-section of the trainway at one of the bridges. Sheet piles were driven for retaining walls and faced on the inside with concrete. At the bridges, 11 H-piles were driven to provide additional bearing for each abutment

from 3 to 10 ft. above the grade along the existing right of way, with vehicular traffic crossing under the tracks in underpasses. The principal objections to this plan were that it would create a physical barrier that would divide the downtown area of El Paso into two sections, with an adverse effect on the normal development of the business district, including access to business properties on eight blocks; that the underpasses would of necessity have approach grades of approximately eight per cent, which would be detrimental to proper access to the business district from the north; that the streets were of inadequate width for the construction of the underpasses without the acquisition of additional property at high cost and with damage claims; and that this plan would introduce greater operating grades, as far as the railroads are concerned, than would be required if the tracks were depressed, but at the same time it would offer a right of way that would impose no limitations on the speeds of trains within the congested section of the city.



The only portions of El Paso's depressed trainway above the normal ground line are the balustrades along the sides and at the street bridges

The track-depression plan, estimated to cost about \$5.5 million, proposed the consolidation of the two sets of tracks into one of three tracks and depressing them so that, with a relatively small elevation of the streets, a clearance of 22 ft. would be obtained between the tops of the rails and the low steel of the proposed street bridges. Under this plan there would be no portion of the improvement constructed above the present grade of the abutting streets to divide the business section into two sections. All street pavements would extend across the railroad at approximately the present grade, thus



A stiff-leg derrick with a 90-ft. boom set up the sheet piles, driving them to a 10-ft. penetration. Later, two other driving rigs, each working on one wall, drove the piling to a penetration of about 17 ft. below the proposed top-of-rail elevation



After the sheet piling had been driven, the cut was excavated in two "bites," the first being 12 ft. in depth. The wall struts and walers were installed to brace the upper walls before the second "bite" was made

eliminating the need for additional right of way and the payments of heavy property damages. Furthermore, this plan would result in the least disturbance to existing railroad facilities, the proposed railroad grades being as good as, if not better than, those over which they were then operating, and, as with the track elevation plan, there would be no need to limit the speeds of trains through the heart of the city.

#### **The Plan Adopted**

In view of the foregoing, the engineers recommended the track-depression plan as being the most feasible and satisfactory solution, and this recommendation was adopted by the City of El Paso, the Texas Highway Department and the several railroads involved. The plan developed includes the following major features:

1. Construction of a depressed track structure, 45 ft. wide by 26 ft. deep at its lowest point and about one-half mile long, on a privately owned railroad right of way, to carry three main tracks beneath the eight main business street crossings, with each of the tracks available for operation in either direction by the installation of centralized traffic control.

2. Provision of six single-span and two twin-span street bridges for carrying vehicular traffic over the depressed tracks.

3. The bobtailing of the T. & N. O. freight yard at its west end and, to compensate for this loss of trackage, the extension of both the T. & N. O. and the E. P. & S. W. yards eastward, together with the construction of a 20-span highway overpass structure to replace two major trafficways, known as Dallas street and Cotton avenue, which intersect on the S. P. right of way at the east end of the extended freight yards and formerly crossed the tracks at grade.

For financing this \$5.5 million project, the Texas Highway Department agreed to participate to the extent of \$1.5 million, of which amount about \$416,000 was to cover the cost of the Cotton Avenue overpass, and the remainder was to be used to defray part of the expense of the depressed track structure. The remaining portion of the cost of the project was borne equally by the City of El Paso on one hand and the railroads jointly on the other hand.

The most interesting phase of the project from the standpoint of construction is the retaining walls flanking the depressed tracks. Limited right of way, and the proximity of buildings, ranging from one-story frame to seven-story brick structures, along the right of way, precluded the economical construction of concrete retaining walls of conventional design. Therefore, a design was developed for permanent walls of steel sheet piling, driven to grade before any substantial amount of excavation was carried out, struttured across the top with welded lattice steel members, faced with concrete for the sake of both appearance and preservation, and protected from electrolytic attack from stray electric currents by a system of cathodic protection.

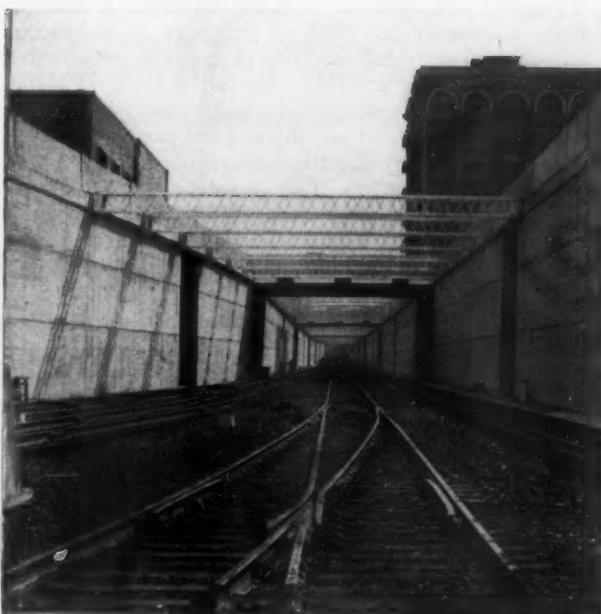
The sheet-pile retaining walls were constructed of Carnegie Z-type piling of an average length of 42 ft., MZ-32 sections being used where no surcharge or building load would occur and MZ-38 sections being used where the maximum load on the back of the wall would be that of a one-story brick building. Buildings in excess of one story in height were shored and underpinned with T-shaped cast-in-place concrete piers to carry foundation loads to the depth of the new track subgrade.

Sheet piles were driven by two McKiernan-Terry 9B3 rigs, one on each wall, driving through from west to east. Only one cross street was closed at a time for driving of the piles and the closure periods for the crossings averaged only ten days per crossing.

#### **Accurate Driving Obtained**

To facilitate proper and satisfactory driving, the sheet piles were set up 100 ft. in advance of the driving rigs. This was done by a stiff-leg derrick with a 90-ft. boom. In setting up the piles they were driven to a penetration of 10 ft., with every fifteenth pile being driven to a depth of 20 ft. The driving rigs then drove the piles to a final penetration of approximately 17 ft. below the new top-of-rail elevation.

Allowable tolerance in vertical alignment of the piling



The three tracks, placed at 14-ft. centers through the train-way, are laid with 113-lb. headfree rail on creosoted pine crossties and are ballasted with lead and zinc slag



Workmen installing one of the graphite anodes forming part of a cathodic protection system for guarding the steel sheet piling from electrolytic corrosion

was set at 1/16 in. per ft., with a maximum allowable displacement of 2 in. toward the track at top-of-rail elevation. Although 2,682 sheet piles were driven in the walls, the maximum allowable displacement was found to have been exceeded in only two places which were later corrected.

Safety niches, to afford refuge for railroad maintenance men working in the depressed track area and to allow for expansion and contraction in the sheet-pile walls, were placed at alleys between cross streets. These niches, about 300 ft. on centers, vary in depth from 3 1/2 ft. to 6 ft. and are 16 ft. across the face.

The concrete facing was applied to the piling after waiting for one year from the time they were driven to afford ample time for them to attain their final set. Mainly because of the irregular shape of the sheet piling, the thickness of the concrete facing varies from 3 1/2 in. to 18 in. Berry strain gage readings taken during the waiting period indicated very little settlement in the piling. Reinforcing steel for the facing was fastened to the piling by means of spot-welded "J-hooks" placed on 24-in. and 18-in. centers, vertically and horizontally.

#### Storm Water Automatically Ejected

At the low point of the depressed track structure an underground concrete sump of 16,000 cu. ft. capacity has been provided to take care of storm waters entering the depressed area. Concrete track gutters along the walls of the structure carry water to the sump, from which it is removed by pumping into surface drainage structures. The pumping equipment consists of four 1,500-g.p.m. electrically driven centrifugal pumps and one standby 3,000-g.p.m. gasoline-engine driven pump. The pumps have automatic starting equipment and are housed in a 30-ft. square concrete pumphouse immediately adjacent to the track area.

At the west end, where the tracks swing into El Paso's Union Depot, the West Main Street overpass takes care

of the westernmost city street crossing of the depressed track structure. This overpass is a 70-ft. wide by 155-ft. long through plate-girder bridge on a 26-deg. skew at the northerly end and a 36-deg. skew at the southerly end. The bridge deck is of 4 1/4-in. I-Beam-Lok flooring filled with concrete.

The Campbell Street bridge at the east end of the depressed track area is a two-span I-beam bridge 70 ft. wide and 90 ft. long. The bridge deck is of 6-in. concrete supported by wide-flange beams. Both the West Main Street and the Campbell Street bridges are carried on reinforced concrete abutments and piers.

In between Campbell street on the east and West Main street on the west are six street bridge crossings of the depressed track structure. These bridges are all single-span steel I-beam bridges of about 47 ft. in length. The pavements are 50 ft. wide, with 10-ft. sidewalks on each side. The bridge decks are of the same design as the Campbell Street bridge.

#### Sheet Piles Used for Abutments

An unusual feature of the six intermediate street bridges is the method of supporting them. In the inside U-pockets formed by the sheet piling, 10-in. H-beam piles were driven to grade. Eleven piles were used at each bridge end and these piles, together with the sheet piling, form the bridge abutments. Considerable economy was effected in the construction of these bridges by doing the erection work before the cut was excavated beneath them.

The longest street bridge of the project is one carrying Cotton avenue over the east end of the extended railroad yards. This overpass is a 970-ft. 20-span continuous steel I-beam structure with two 24-ft. roadways, a 4-ft. median strip and 6-ft. sidewalks on each side. It is supported on bents of steel H-beam piling driven to grade. The approaches are earth fill held within existing street lines by reinforced concrete retaining walls.

Excavation between the retaining walls of the track

depression was carried out in two lifts, the first one being 12 ft. in depth. The wall struts and walers were placed after the first lift of the excavation had been completed. Total excavation amounted approximately to 125,000 cu. yd., a substantial part of which was sold to outsiders for filling purposes. Practically all of the excavating work was done by power shovels, clamshells and bulldozers.

#### Standard Clearances Provided

The depressed track structure provides a minimum vertical clearance of 22 ft. above the top of rail and a minimum horizontal side clearance of 8½ ft. from the track centers. Tracks are placed at 14-ft. centers, are laid with 113-lb. head-free rail and are ballasted with lead and zinc slag secured from a local smelter. Crossties are 7-in. by 9-in. by 8-ft. creosoted pine spaced about 24 ties per 39-ft. rail. Entering the trainway from the east the tracks descend on a grade of 0.3 per cent; from the west there is a descending grade of 1 per cent. These grades are connected by a 1,200-ft. vertical curve.

Utility line crossings of the depressed track structure are made in several ways. Near the center of the area, a 4-ft.-wide steel arch bridge at strut level carries a 16-in. gas line over the depressed tracks. A main electric cable at the west end is also carried over on a special structure, and a telephone trunk cable at the east end is encased in the sidewalk of the Campbell Street bridge. But, for the most part, the utility lines are carried across between the girders and beneath the sidewalks of the street bridges.

The finishing touch for the depressed track structure consists of a blanketing cathodic system for protecting the sheet-pile walls against damage from electrolytic action. The design of the protective system was based on hundreds of readings taken along the pile walls over a period of almost a year. Elements of the system are so arranged as to secure the continuous passage of a direct current from electrodes through the soil to the steel sheet piling, thus protecting the piling against corrosion where it is in contact with the soil.

To permit rail traffic through the depressed track area and the somewhat restricted yard throats to be handled efficiently and satisfactorily, it was necessary to provide a system of electric interlockings and centralized traffic control. This signal system, designed by the Union Switch & Signal Co., consists of two interrelated parts which control movements on all main and diverging tracks, as well as cross-track movements. Two two-story brick and concrete control towers of modern architecture were built to house the control equipment and interlocking machines. One of these is at each end of the layout.

#### Work Done Under 11 Contracts

In general, all of the work was performed by contractors under 11 separate contracts, which permitted the smaller contractors to bid on the work, thereby stimulating competition. However, the railroads furnished all of the materials and labor required for the construction, rearrangement, relocation and removal of all trackage. The railroads also provided a substantial quantity of signal cable and all labor required for completion of the interlocking and C.T.C. systems.

Harlan H. Hugg, of De Leuw, Cather & Co., was in direct charge of the work for the City of El Paso, as project manager. Texas Highway Department interests were under the immediate supervision of P. S. Bailey, former state highway district engineer and now maintenance engineer at Austin, and E. W. Mars, present district engineer.

Railroad officers actively associated with the project include E. E. Mayo, chief engineer, Southern Pacific Company; R. J. Gammie, chief engineer, T. & P.; H. J. McKenzie, then chief engineer of the T. & N. O. and now executive vice-president, St. Louis Southwestern; and B. M. Stephens, assistant chief engineer, T. & N. O. Installation of the signal equipment was under the immediate supervision of E. D. Dumas, signal supervisor of the T. & N. O. Track construction, rearrangement, relocation and removal were under the direct supervision of H. A. Hunt, resident engineer of the T. & N. O.

## Communication . . .

#### For Bulk Rates

SALT LAKE CITY, UTAH

##### TO THE EDITOR:

Mr. McGinnis' article in the January 22 *Railway Age* is very interesting. Now I believe is the time to press for the railroads' case for contract and bulk rates in the same manner as is being done in the subsidy question, i.e., it is in the interest of the public and shipper.

With the government — i.e., the taxpayer, i.e., the public — doing a large amount of shipping in bulk amounts but not at bulk rates a lot of taxes will be spent that otherwise would not. The same applies to the private shipper as it will fall on the railroads to handle most of the increase especially if steel is diverted from pipe line construction and gas from the highways. While the railroads would make more money hauling bulk amounts at the high rate, that would be a shortsighted view and now would be a golden opportunity as the public should be able to see that it is to their advantage to have the railroads give contract and bulk rates. Also the time involved getting this across may take longer than the present emergency.

W. J. KIEFER



ANOTHER IN THE SOUTHERN'S SERIES of posters which attempt to make yard crews conscious of what rough handling means to railroad employees

# GENERAL NEWS

## Freight-Rate Case Argued before I.C.C.

### Much opposition to pro- posed 6 per cent increase

Oral argument on the railroad motion for a 6 per cent interim increase in freight rates began February 27 before the Interstate Commerce Commission in Washington, D.C. Scheduled to continue for about three days, the argument followed a week-long session of hearings in which more than 50 parties of interest entered statements opposing the increase.

E. H. Burgess, general counsel of the Baltimore & Ohio and chief counsel for the roads in the present case, opened the argument. "This case can be stated very simply," Mr. Burgess said. "There has recently been imposed on the railroads increased operating costs amounting to \$422 million on an annual basis. As a result the earnings of the industry are being cut down, and an increase of 6 per cent is necessary to cover the increased burden of expense."

The railroad motion is for an immediate increase on an interim basis, pending final determination of the road's petition for a permanent 6 per cent increase. (See *Railway Age* of February 26, page 40, and January 22, page 31). A stipulation has been filed by the carriers in which they have agreed to make reparations, should the commission's final decision in the case approve a smaller increase than may be granted in the interim. The proceeding is docketed by the I.C.C. as Ex Parte No. 175.

### Mr. Burgess' Testimony

Mr. Burgess presented "several facts" in addition to his opening remarks about increased operating costs—which he called "the cardinal and basic fact in this case." He told the commission that prospective earnings in 1951 are not sufficient to absorb these added costs, "and at the same time permit railroad management to improve and rehabilitate facilities to do the job it is being called upon to do."

The rate of return on net investment in 1951 will be only about 3.3 per cent at present rates and charges, Mr. Burgess said. With the 6 per cent increase in freight rates the return would still be only 4.17 per cent if in effect the full year. This latter estimate is overstated because two months have already elapsed, he said.

"The railroad industry is only ask-

ing for enough money to run itself," Mr. Burgess argued. He went on to say that the 1950 rate of return of 3.95 per cent "does not reflect all operating expenses we face in 1951," and he cited the manpower shortage and "escalator clauses" in wage contracts as factors making for higher costs this year.

Commenting on the 1951 traffic estimate submitted by the carriers at the hearings, Mr. Burgess said the estimate, submitted by Dr. J. H. Parmelee of the Association of American Railroads, is the only one "that purports to survey actual field conditions." Other estimates in this case do not

have the benefit of such a survey, and "they're gambling with transportation" when bad guesses are made, he said.

The railroad industry is also committed to large capital expenditures and equipment purchases in 1951, Mr. Burgess continued. Unless it is granted the increase in rates, which will help provide money for these expenditures, the industry will surely be weakened at a time when it should be growing strong in the interest of the nation. Our earnings today stand at the foot of the class, as compared to other industrial earnings, Mr. Burgess declared.

"Railroads are being asked to do what no other industry can do or will even try to do—that is, live in today's economy without an increase in price," he continued. He said objections raised by the protestants in the case are based principally on the claim that no state of emergency as yet exists in the railroad industry, and he quoted the late Jacob Aronson as saying that one cannot wait for the death rattle in the patient's throat before sending for the doctor.

### Government Opposes

Following Mr. Burgess during the first day of the argument were representatives of the government agencies actively opposing the interim increase. These included Walter Matson, for the Department of Agriculture; C. E. Childe, representing the Department of Commerce; Gerald L. Phelps, for the Economic Stabilization Administration; Charles McCarthy of the Tennessee Valley Authority, and John J. Kirby, for the General Services Administration.

These presentations generally took the position that no emergency exists as alleged by the railroads, that an increased volume of traffic in 1951 will eliminate the need for higher rates, and that a rate increase "will disturb the whole stabilization program."

In addition to these contentions, the Department of Justice filed a memorandum brief in which it said the carriers "have failed to make out a case for any immediate increase in freight rates under the standards of the Interstate Commerce Act." Proof that such increases are required "is wholly wanting" in this case, the department said.

Mr. Matson of the Department of Agriculture told the commission that the roads "have failed to prove that an emergency exists," and that they now have the "strongest basic financial structure" in their history. He said railroad estimates of net railway operating income for 1951 are too low be-

### 1951 Traffic and Income Estimates of 29 Large Railroads

Railroad	Revenue Ton-miles (millions)		Net Income (thousands)		
	1950 (part est.)	1951 (est.)	1950 (part est.)	1951 current rates (est.)	1951 w/proposed increase (est.)
Baltimore & Ohio	27,546	28,925	\$13,268	\$14,974	\$22,204
Delaware, Lackawanna & Western	4,091	4,296	3,349	5,049	7,200
Erie	10,500	10,920	12,683	10,430	15,155
Lehigh Valley	4,421	4,642	3,249	5,047	7,526
New York Central	39,127	41,078	10,632	3,707	29,261
New York, Chicago & St. Louis	10,432	10,450	20,338	14,996	17,964
New York, New Haven & Hartford	3,848	4,144	5,838	3,174	6,035
Pennsylvania	49,867	55,157	10,474†	13,747	32,483
Reading	6,825	7,202	9,140	6,800	10,128
Wabash	6,767	7,109	8,699	6,896	9,871
Chesapeake & Ohio	30,600	30,750	33,900	27,600	33,200
Norfolk & Western	16,305	17,257	28,252	25,186	28,756
Atlantic Coast Line	7,453	9,147	11,716	10,298	12,499
Gulf, Mobile & Ohio	5,310	5,576	7,411	5,946	8,166
Illinois Central	19,200	19,221	24,066	14,494	21,501
Louisville & Nashville	14,909	15,851	22,831	17,696	22,473
Seaboard Air Line	8,215	8,448	13,129	11,708	15,192
Southern	13,024	13,640	20,311	18,204	23,953
Atchison, Topeka & Santa Fe*	29,745	30,260	80,000	48,100	56,550
Chicago & North Western	10,734	11,244	5,082	8,749	13,874
Chicago, Burlington & Quincy	16,797	17,587	31,279	22,919	29,343
Chicago, Milwaukee, St. Paul & Poc.	16,240	17,050	13,437	10,285	16,972
Chicago, Rock Island & Pacific	11,780	12,282	15,038	15,157	19,242
Great Northern*	16,050	16,070	25,946	20,800	27,830
Northern Pacific*	11,271	11,750	18,558	15,993	21,467
St. Louis-San Francisco*	7,731	7,731	10,350	7,806	10,500
Southern Pacific*	28,185	28,921	37,538	26,366	34,468
Texas & New Orleans	9,016	9,824	8,868	6,608	9,087
Union Pacific	30,347	31,376	67,823	51,274	62,253

†Excludes \$17,500,000 "Delayed Income Credit" representing a tax reserve adjustment which is a nonrecurring item.

\*Estimates for 1951 made in February 1951; estimates of other roads made in December 1950.

cause they ignore increases already achieved in operating efficiency and thus overstate the operating expenses.

"The economies in operations produced primarily by the diesel-electric locomotive will more than offset increased wage rates and increased prices of fuels, materials, and supplies in 1951, even under the low revenue ton-miles and total operating revenues estimated by the railroads," Mr. Matson declared.

Mr. Childe of the Commerce Department agreed with Mr. Matson that no emergency exists and predicted that 1951 will be a year of "relatively high" railroad earnings. He estimated that rail revenue ton-miles will total 665 billion, as compared to Dr. Parmelee's estimate of 620.2 billion. The department's estimate would be an increase of about 10 per cent above 1950 ton-miles.

Both Mr. Phelps of E.S.A. and Mr. Kirby of G.S.A. urged the commission to deny the railroad motion, the former contending that a rate increase would cause an upward pressure on prices, and the latter saying that the railroads are incorrect in claiming their present earnings are insufficient to attract needed capital.

Among the many shippers and shipper groups taking part in the argument was the National Industrial Traffic League, represented by John S. Burchmore. Mr. Burchmore said the league recognized that the carriers "are not earning a full measure of fair return," but suggested that the commission "withhold any permissive order" and proceed with hearings on the final merits of the case. He, too, said that 1951 will be a year of unprecedented traffic volume, passenger as

well as freight, "on which the present rates may yield much greater income and return than the carriers estimate."

J. P. Randolph, general solicitor of the National Association of Railroad and Public Utility Commissioners, made a brief appearance at the argument to say that many state commissions are opposing the increase. These commissions say the roads in their states are doing better than they have at any time since World War II, Mr. Randolph said. He urged that a "full investigation and full hearing" be had before increases "of any sort" are granted.

Meanwhile, at the hearings held prior to oral argument, Giles Morrow, executive secretary and general counsel of the Freight Forwarders Institute, had entered a statement in the proceeding. Mr. Morrow asked that freight forwarders be authorized to make the same rate increases, on the same notice "as may be authorized or granted in the case of the rail carriers."

#### Coal Traffic May Decline

Another presentation at the hearing was that of Ford K. Edwards, director of the Bureau of Coal Economics of the National Coal Association and former director of the I.C.C.'s Bureau of Accounts and Cost Finding. Mr. Edwards told the commission that coal "has run up against a hard ceiling" market-wise, and that further increases in its cost will cause greater inroads into its market by other fuels. He said the substantial contribution by coal to railroad revenues may shrink, in the face of higher rates, to the point where the carriers would have less return than under present rates.

Mr. Edwards also commented on railroad passenger deficits which he said "represent an economic waste of labor and capital." These deficits serve to drive away traffic which would otherwise move by rail, because it is the fittest agency to handle it, he said. He added that they also magnify the overhead burden laid on the low-grade, volume-moving commodities which cannot readily shift to other forms of transportation, and act to exclude such products as bituminous coal from markets which they could otherwise hold.

### Senate Group Starts Wage-Case Hearings

"Op" leaders tell their stories; rap Dr. Steelman

The Senate committee on labor and public welfare on February 22 began public hearings in connection with its investigation of the failure to settle the long-pending wage and rules disputes involving railroad operating employees who are represented by the four train and engine service brotherhoods. Executives of those brotherhoods, first witnesses at the hearings, put on record their dissatisfaction with the handling of their cases at the White House, objecting particularly to their treatment at the hands of Dr. John R. Steelman, assistant to President Truman.

Presiding at the hearings was the committee's chairman—Senator Murray, Democrat of Montana. He said at the outset that the committee hoped to afford an "impartial" forum for the parties; and to determine whether there was "some legislative remedy" for disputes of the type involved.

Brotherhood executives heard up to the time this issue went to press were Roy O. Hughes, president of the Order of Railway Conductors; D. B. Robertson, president of the Brotherhood of Locomotive Firemen & Enginemen; J. P. Shields, grand chief engineer of the Brotherhood of Locomotive Engineers; and W. E. B. Chase, vice-president of the Brotherhood of Railroad Trainmen. B.R.T. President W. P. Kennedy was scheduled to appear at a later session, while railroad representatives involved in the wage negotiations were also due to tell their stories.

On this matter of who would be heard, the committee had before it a recommendation of one of its members—Senator Morse, Republican of Oregon—that railroad presidents be called as well as members of the regional conference committees. Mr. Morse, so he said, also wants to hear that official of the Department of the Army who has been "head man" in charge of the railroads since they were seized by President Truman last August in the face of the B.R.T.-O.R.C. strike threat. Presumably, Assistant Secretary of the Army Bendetsen is the "head man"; he

# Life Renewal

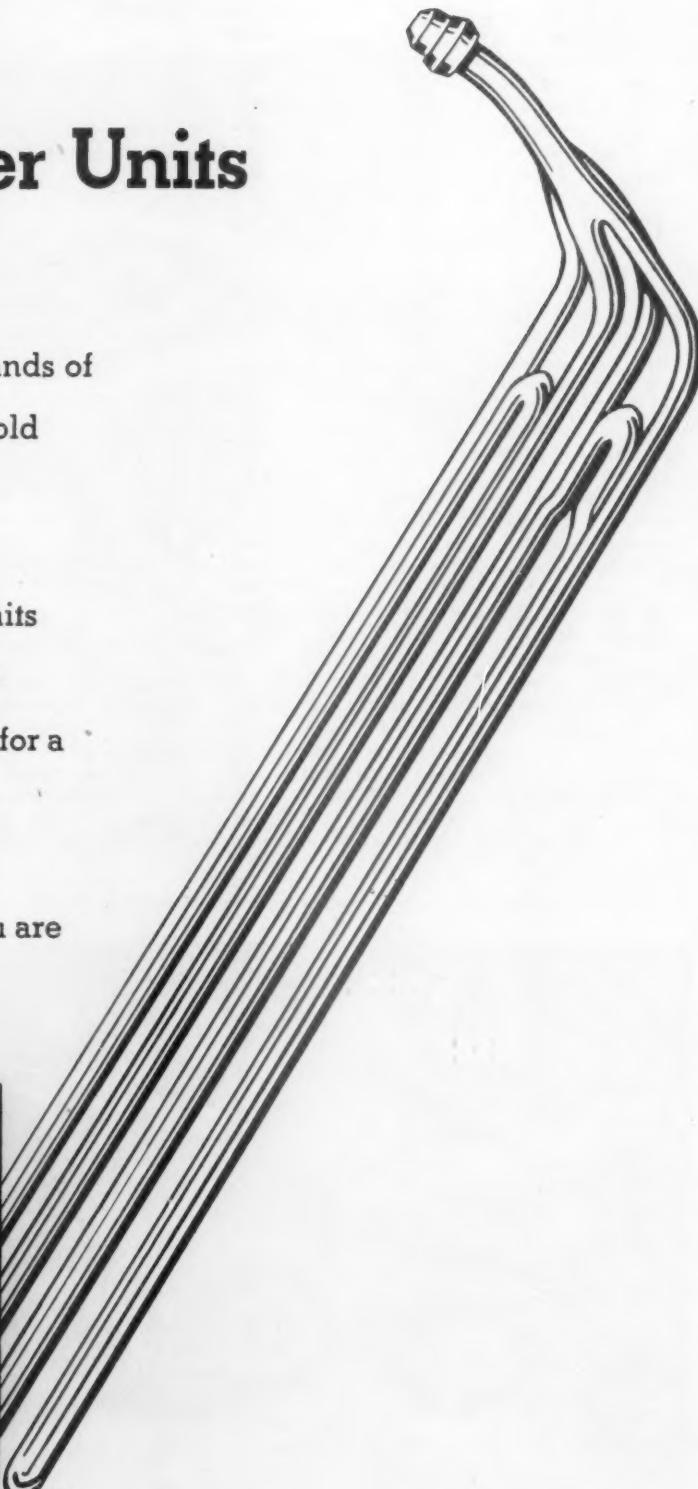
for

## OLD Superheater Units

Many railroads have saved thousands of dollars annually by sending their old superheater units to our plant for remanufacture.

Remanufactured superheater units have a renewed l-o-n-g service life at a cost below the investment cost for a new set of units.

Send your old sets of units to our plant for remanufacture—if you are interested in these savings.



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Superheaters • Superheater Pyrometers • Exhaust Steam Injectors • Steam Dryers • Feedwater Heaters • Steam Generators • Oil Separators • American Throttles

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has been acting for Secretary Pace in carrying out the President's seizure order.

Others whom Senator Morse wants to hear are the three members of the National Mediation Board — and Dr. Steelman. Also, "any and all other parties to the dispute."

Sharpest and most bitter of the complaints against the attitude of President Truman and the activities of Dr. Steelman came from B.R.T. Vice-President Chase. "I never thought," Mr. Chase said, "that I would be in the position of being blackjacked in the east wing of the White House, but that has been my position in these negotiations." Dr. Steelman's office is in the White House's east wing.

Leading up to the foregoing remark, Mr. Chase said that "the doctor" had told the brotherhood chiefs that "it was the position of the President of the United States that his emergency board reports had to be accepted and lived up to." That, Mr. Chase added, was "what we had been getting from the carriers."

Later Dr. Steelman proposed a settlement on the basis of the so-called Steelman formula, which settled the like dispute involving yardmen represented by the Switchmen's Union of North America. When the brotherhood executives insisted that their demand for a 40-hour week with no loss in take-home pay was a "must," Dr. Steelman, as Mr. Chase put it, implied "that the President of the United States would ram the settlement down our throats"; that the President considered the settlement proposal "reasonable," and that "we would accept it—or else."

The B.R.T. vice-president also reported

that the union leaders asked to see the President, but were advised by Dr. Steelman that Mr. Truman was "too busy." Mr. Chase also recalled what he described as "another veiled threat" from "the doctor," who had meanwhile been advised that the brotherhoods "wouldn't forsake" the "48-for-40 principle."

Another feature of the proposed settlement to which the B.R.T. objected was that which would make Dr. Steelman the arbiter of disagreements as to the interpretation of any working agreements involved. To point up his union's position on this matter, Mr. Chase made this statement:

"I think the . . . committee will be interested to know that as recently as last Saturday night [February 24] the National Mediation Board asked us to sign an agreement that would retain John R. Steelman . . . in our contract with the railroads as arbitrator for a limited period of time. I wish to make it perfectly clear to the Senate, the public and the President that we do not want Steelman in our contract for any period of time. We regard his attempt to chisel in while acting as mediator in our dispute as establishing a new all-time low for morality in public office, even measured by present-day standards."

#### Questioned by Senator Morse

Senator Morse questioned Mr. Chase at some length regarding the B.R.T.-O.R.C. call of a nationwide strike for last August 28 after the White House had received on August 23 what it interpreted as assurance that there would be no such walkout and that the "token" strikes then in force would end

in a couple of days. Mr. Chase denied that B.R.T. and O.R.C. executives had given any assurance that there would be no walkout—all they had promised was that the "token" strikes would end.

Senator Morse then asked if Mr. Chase thought that the decision to call off the "minor" strikes produced a "misunderstanding" to the effect that there would be no nationwide walkout. Mr. Chase replied that the "White House staff" either "assumed" the latter or "misinformed the President." Asked to identify the "staff," Mr. Chase said that only Dr. Steelman was present.

Senator Morse also inquired into the "memorandum of agreement" which was signed at the White House December 21, 1950, by the four "op" leaders and management representatives only to be repudiated by the general chairmen of the unions. Mr. Chase insisted that the agreement set out in the memorandum was "tentative." He also revealed that B.R.T. President Kennedy recommended to the general chairmen that the agreement be turned down. Mr. Kennedy was one of the signers.

From the presentation of O.R.C. President Hughes, the committee learned what the B.R.T. and O.R.C. thought they gained by government seizure, which they advocated. The "only advantage," Mr. Hughes said, was the prevention of unilateral action on the part of the carriers to install the rules changes which they proposed in the emergency-board proceeding.

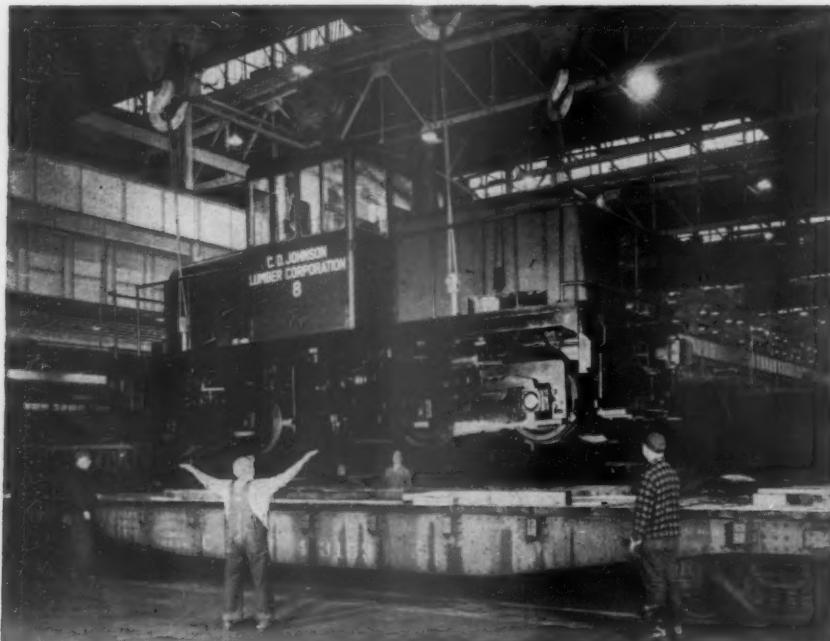
On the other hand, President Robertson of the B. of L.F. & E. had no such fears. He told the committee that railroad presidents, to whom he could appeal if necessary, "just don't ram things down people's throats." Thus Mr. Robertson would "never ask the government to seize the railroads."

O.R.C. President Hughes also said that his union "supports the theory that the government should impound profits during government seizure and control brought about by unsettled labor conditions." When Mr. Robertson was asked about that, he replied that a carrying out of the proposal would be "quite an undertaking" in view of the constitutional requirement that the carriers receive "just compensation" in the way of rental for the seized property. If "just compensation" could be arranged, Mr. Robertson would favor impounding the "profits."

#### Discusses "Inequities"

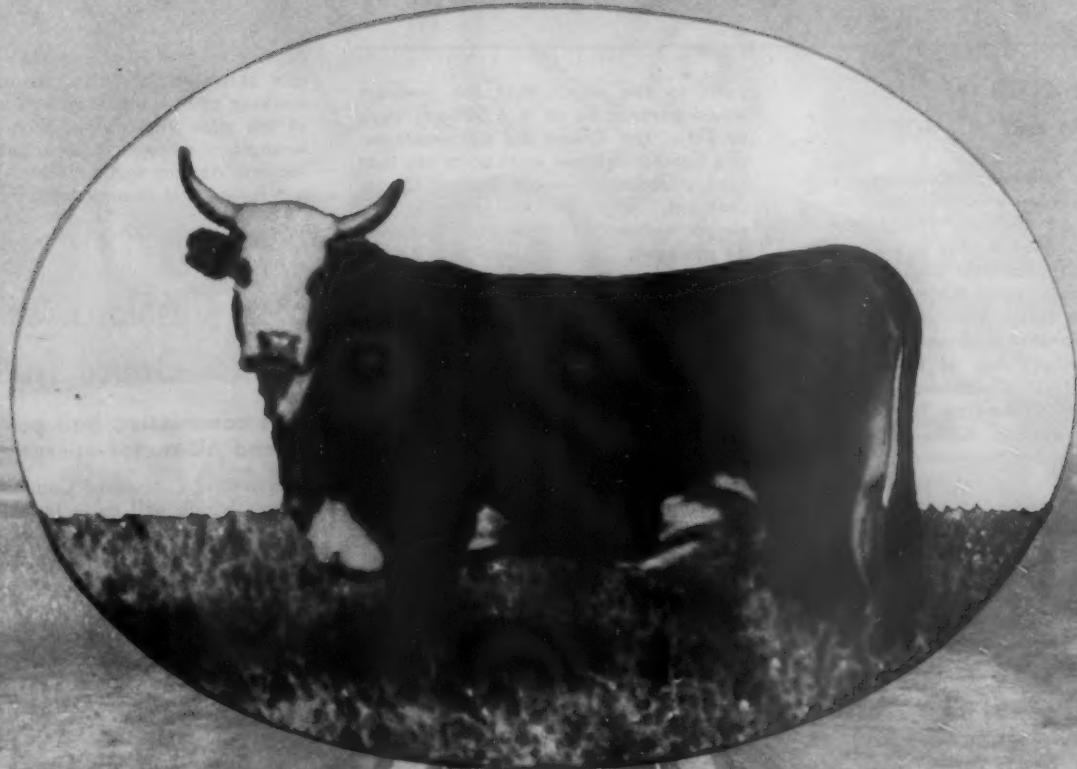
Much of Mr. Hughes' statement was an argument in support of his contention that "inequities" to which trainmen and conductors are now subjected require correction. The "inequities" are the 150-mile "day" for passenger conductors and the failure of the trainmen-conductor wage scales to provide for graduated rates on some such basis as the weight-on-driver arrangement enjoyed by enginemen.

The O.R.C. president's more general discussions included a condemnation of the carrier conference committees for their "determined effort" to "convert the report of the emergency board into an arbitration board award." This amounted to "an attempt to amend the



A STANDARD G-E 45-TON diesel-electric locomotive being loaded on a flat car at the General Electric Company's Erie, Pa., works for shipment to the

C. D. Johnson Lumber Corporation, Toledo, Ore. The locomotive will operate on the Pacific slope of the coast range, replacing a steam locomotive



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## FURTHER CUTS IN CAR PROGRAM ARE RUMORED

Interstate Commerce Commissioner J. Monroe Johnson, who was director of the Office of Defense Transportation during World War II, has heard reports to the effect that the Department of Commerce may favor further reducing the railroad freight-car program to a 6,500-car monthly program in July. As noted in *Railway Age* of February 26, page 44, steel allocations made for May by the Commerce Department's National Production Authority mark a cut in the monthly program from 10,000 to 9,000 cars.

Colonel Johnson's comment on the situation came in the course of a discussion he had with C. E. Childe at last week's oral argument on the railroads' *Ex Parte 175* petition for a 6 per cent increase in freight rates. Mr. Childe was representing the Commerce Department in opposing the rate increase.

Colonel Johnson referred to the curtailed allocations for May, and then told Mr. Childe that he had heard re-

ports to the effect that the program would perhaps be on a 6,500-car basis by July. Mr. Childe did not comment, and Colonel Johnson went on to say that such a reduction would be a "35 per cent cut," while the production of passenger automobiles had been cut only 20 per cent.

N.P.A.'s official announcement of the cut to 9,000 cars for May was made on February 27. It said that the reduced allocations were "considered necessary by N.P.A. because of the mounting demands for steel for other defense supporting programs." The announcement also noted that "January production of new freight cars was 5,949 units."

An appeal to the Defense Production Authority to resume allocation of sufficient steel to permit construction of 10,000 freight cars a month was made March 1 by the Chamber of Commerce of the United States. D.P.A. is on top of N.P.A. in the defense-agency set-up. The Chamber's appeal was embodied in a letter which its president, O. A. Seyforth, wrote to D.P.A. administration W. H. Harrison.

Railway Labor Act without Congressional action," Mr. Hughes added.

He also said that "the failure of collective bargaining in the present dispute and the ever-increasing reluctance of the railroads to deal with their employees through previously accepted channels has now undermined our faith."

President Robertson of the B. of L.F. & E. said in his prepared statement that he feared "dire results unless a solution is found soon." He added that the "facts" show that the treatment being received by railroad employees, at a time when the railroads are "rolling in wealth," has been "nothing short of niggardly."

"It has been my experience," Mr. Robertson concluded, "that the railroad worker is a patriotic, patient and long suffering citizen. But his ability to endure mistreatment and to work with a bayonet pointed at his back is not limitless. Sooner or later, whether we like it or not, he will assert his unwillingness to be a slave and will lay down his working tools. Those are the prospects we must seek to avoid."

Responding to questions by Senator Humphrey, Democrat of Minnesota, Mr. Robertson said that there had been no "good faith" bargaining, as he measures "good faith," since the union leaders returned to Washington on January 18, after the "memorandum of agreement" was rejected by their general chairmen. The carriers "have not departed" from the December 21 memorandum, Mr. Robertson complained, adding that "you can't have collective bargaining that way."

The B. of L.F. & E. president described the carrier representatives as "fine men," but he never before found them unwilling to be moved by "reasonable" arguments. "You can't have genu-

ine collective bargaining where one party is sheltered and the other is at a disadvantage as we are," Mr. Robertson also said.

Senator Lehman, Democrat of New York, asked Mr. Robertson for suggestions for amending the Railway Labor Act. The B. of L.F. & E. president replied that the act didn't need much modification. The trouble, he added, has been in the administration of the act, which "has been made a compulsory arbitration act."

### President Roosevelt's Method

Mr. Robertson's only suggestions were that provision be made for appointment of representatives of the parties to emergency boards, and for making it clear that an emergency board's recommendations are not binding. Previously, Mr. Robertson had recalled how the late President Roosevelt had promoted the settlement of disputes in cases where the unions rejected reports of emergency boards. Labor-management disputes, he added, can't be solved when a President takes the position that emergency-board reports are binding.

Grand Chief Engineer Shields of the B. of L.E. made a presentation like those of Messrs. Hughes and Robertson, but with special reference to B. of L.E. demands and that union's experience in the negotiations. Mr. Shields objected particularly to the carrier rules proposals, which were approved by the emergency board and embodied in the December 21 memorandum of agreement.

"Throughout conferences and mediation," he complained, "we have been faced with an adamant carrier position that they will not grant justifiable wage increases to engineers unless and until we give back concessions which would

deprive engineers of earnings opportunity and adversely affect advantageous working conditions. Deprived as we are of the right to exercise our economic strength at present, the carriers cannot see any danger to themselves in refusing reasonable concessions . . . ."

## Court Upholds I.C.C. On Rail-Owned Trucks

### Says commission had power to end all-motor operations

Interstate Commerce Commission decisions which will drive trucking affiliates of railroads out of the so-called all-motor freight business have been upheld by the United States Supreme Court. The railroad affiliates involved are the Rock Island Motor Transit Company, subsidiary of the Chicago, Rock Island & Pacific, and the Texas & Pacific Motor Transport Company, subsidiary of the Texas & Pacific.

They had been operating all-motor services for several years when the commission ruled out such operations by imposing new or additional conditions designed to insure that the highway freight operations became auxiliary to rail services of the parent railroads. The Supreme Court's 5-to-4 decisions, announced February 26 by Justice Reed, reversed rulings setting aside the commission orders, which had been made by special three-judge courts sitting in federal district courts for the Northern District of Illinois and the Northern District of Texas.

There were two decisions covering three cases—one in No. 25, the U. S. and I.C.C. v. Rock Island Motor Transit Company, et. al., and the other in Nos. 38 and 39, the U.S. and I.C.C. v. Texas & Pacific Motor Transport Company, and Regular Common Carrier Conference of American Trucking Associations v. T.P. Motor Transport. The dissenters in both cases were Justices Black, Douglas, Jackson and Burton. They were of the opinion "that the commission partially revoked the certificates involved in a manner not authorized by the Interstate Commerce Act."

As the court put it, the cases raised questions of the commission's power "to tighten the restrictions on operations of a railroad's motor-carrier affiliate." The operating rights involved in the Rock Island Transit case were purchased by Transit from independent operators—White Line Motor Freight Company and J. E. Frederickson.

### Reservation of Authority

In approving the White Line purchase in 1941, the commission did not impose all of the usual conditions designed to insure that the highway operations remained auxiliary to Rock Island rail service. However, it did include in the certificate conditions confining the trucking operations to points

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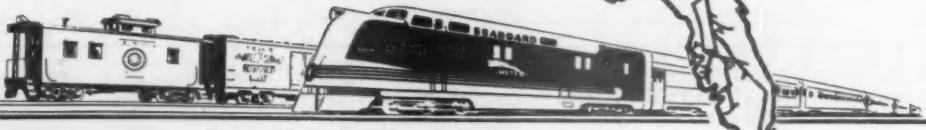
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THE ROUTE OF COURTEOUS SERVICE

which were also stations on Rock Island lines, and stipulating that the authorized operations would be subject to such further restrictions as the commission might find it necessary to impose in order to insure that the service remained auxiliary to train service.

This reservation of authority became the basis for a 1946 commission decision imposing additional conditions (see *Railway Age* of March 23, 1946, page 650). Evidence in the case included Transit's estimate that the new restrictions would bar it from participation in traffic that produced gross revenue of \$1 million a year.

After examining contentions of the parties, and pertinent provisions of the Interstate Commerce Act, the Supreme Court ruled that the commission had authority to act as it did. The court's reasoning included the following:

"When competition, public interest in the preservation of inherent advantages of rails and motors, and use of motor service by railroads in their operations, are the basis, as they are . . . for allowing acquisitions of motor routes by railroads, we think it consonant with that policy to reserve the right to make further limitations . . . Congress could not have expected the commission to be able to determine once and for all the provisions essential to maintain the required balance.

"Such a reservation, of course, does not provide unfettered power in the commission to change a certificate at will. That would violate section 212 allowing suspension, change or revocation only for the certificate holders' willful failure to comply with the act or lawful orders or regulations of the commission. The reservation by its terms does not offend against . . . section 212 . . . The commission asserts the modifications were made in accordance with the certificate. . . ."

The court then proceeded to examine the conditions imposed. They included the usual type of "key-point" restrictions, setting up "key points" between which truck service was prohibited. The modification was "not a

change of policy" by the commission as to what constituted "auxiliary and supplemental service," but only "an additional requirement to insure coordinated service," the court said. It thus held that the new conditions "are within the limits covered by the reservation of power."

#### Admits "Hampering" Railroads

It conceded that the restrictions "hamper railroad companies." It then added, however, that the "announced transportation policy of Congress" does not permit railroad enterprises to encompass "all or as much of motor transportation as the roads may desire."

When it came to its consideration of the Frederickson purchase, the court was confronted with a situation wherein the commission's order approving the purchase by Transit had neither imposed conditions nor reserved the right to do so. The transaction was consummated on the basis of that order; and the commission then attached the usual conditions to the certificate which it issued to authorize Transit's operation of the acquired Frederickson rights.

The court found it could "solve the problem" by determining that the commission order approving the purchase "has not the finality of a certificate but is rather only a tentative approach to the consummation of the purchase subject to changes in conditions and requirements." As to Transit's action in consummating the purchase on the basis of the order, the court suggested that the "transportation industry is familiar with the complexities of closings . . . it understands the business risks of purchase or sale ahead of final commitment by a separate entity." Also, Transit "had had experience with the problems of coordination between rail and motor service."

The certificate, the court concluded,

"is the final act or order that validates the operation." Meanwhile, the court left "unanswered" the question of the power of the commission to modify a railroad-affiliated motor carrier certificate "so as to make its operation auxiliary to and supplemental of rail service, when no reservation for or restriction to that effect has been placed in the order directing the issue of the certificate or the certificate itself."

"If any such procedure should be undertaken by the commission," the court added, "that answer should await a fully developed statement and arguments by the interests affected."

The T.P. case was like the White-Line-acquisition phase of the Rock Island case, i.e., the commission had acted under reserved authority to impose additional conditions. Sixteen proceedings involving trucking certificates held by the Texas & Pacific Motor Transport Company were involved. The commission had reopened the proceedings and modified the certificates so that each included all five of the usual conditions which are imposed to insure that highway freight operations remain auxiliary to rail service (see *Railway Age* of February 21, 1948, page 62).

The Supreme Court brushed aside arguments for upholding the lower court's ruling in this case, saying that all such arguments "may be promptly rejected" in view of its decision in the Rock Island case.

#### Taylor Named Director Of I.C.C. Service Bureau

Charles W. Taylor, Jr., has been appointed director of the Bureau of Service of the Interstate Commerce Commission. He succeeds Homer C. King who has become deputy director of the Defense Transport Administration. Mr.

<b>C E R T I F I C A T E</b> of <b>SANITATION</b>	
<small>(Conveyance)</small> <small>(Operator)</small>	
<p>This is to certify that an inspection has been made of this conveyance and that at the time of inspection, the sanitation features and methods in use were found to satisfactorily meet the standards of the Public Health Service.</p>	
<small>Regional Engineer</small> <small>Address</small> <small>This certificate is valid for another. An authorized Public Health Service representative may, for cause, revoke it from the conveyance at any time.</small>	<small>Surgeon General, USPHS</small> <small>Date</small>
<small>(Signature)</small>	

<b>C E R T I F I C A T E</b> of <b>SANITARY CONSTRUCTION</b>	
<small>(Conveyance)</small> <small>(Built or repaired by)</small>	
<p>This is to certify that an inspection was made of this conveyance and that at the time of inspection the features of sanitary construction and the sanitation facilities were found to satisfactorily meet the standards of the Public Health Service.</p>	
<small>Regional Engineer</small> <small>Address</small>	<small>Surgeon General, USPHS</small> <small>Date</small>
<small>(Signature)</small>	

Certificates of compliance with sanitation requirements of the Public Health Service, Federal Security Agency, formerly issued only to vessels of United States registry, have been revised to

include other types of conveyances engaged in interstate traffic. The certificate of sanitation, which replaces the former certificate of compliance for ships, is to be posted in railroad dining

cars as well as ships. The certificate of sanitary construction is going to all types of interstate carriers. Both certificates are 6 in. by 8 in. in size, printed in dark blue on a light blue surface



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## Call from the RED CABOOSE

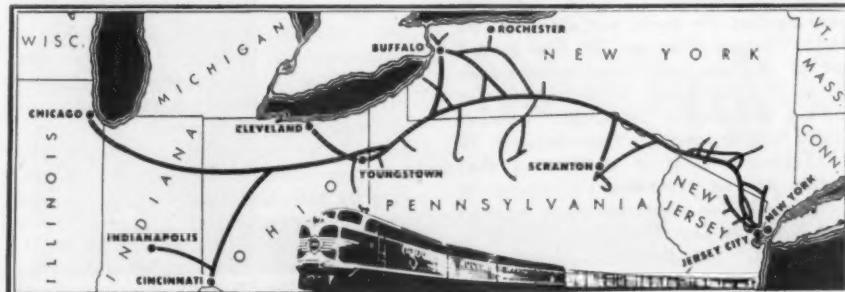
"CABOOSE 247 calling diesel 734!  
... Hot-box about 40 cars back  
... better stop . . . we'll look at it."  
This message by radio-telephone  
will bring this fast-moving freight  
train to a halt before trouble starts.  
Previously, when a conductor spotted  
smoke pouring from the wheels of

a freight car he would apply the air  
brakes from the caboose to stop the  
train. This often caused damage to cars  
and contents, and sometimes delays.

Erie's new radio-telephone system is  
so flexible it also allows communica-  
tion with crews of other Erie trains,  
wayside stations, or train dispatchers.

The system now covers 85% of Erie's  
thousand miles of main line between  
New York and Chicago, with com-  
pletion ordered, giving the Erie the  
first and *most extensive* main line  
radio system of any railroad.

Here again is another example of  
Erie's constant and progressive effort  
to assure safe, dependable railroad  
transportation.



# Erie Railroad

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Taylor was formerly manager of the Refrigerator Car Section of the Car Service Division, Association of American Railroads.

### Order Defines Transport Roles in Defense Set-Up

President Truman on February 28 issued an executive order "defining certain responsibilities of federal agencies with respect to transportation and storage." The agencies include the Defense Transport Administration and the Department of Commerce.

Generally, the order clarifies and spells out functions delegated to the involved agencies by President Truman after enactment of the Defense Production Act of 1950. The Presidential authority exercised through D.T.A. is that delegated to "the commissioner of the Interstate Commerce Commission who is responsible for the supervision of the Bureau of Service of the commission." That commissioner is James K. Knudson who established D.T.A., of which he is administrator, to carry out the assignment.

That part of the February 28 Presidential order which applies to Mr. Knudson stipulates that he "shall" do the following:

(a) Assemble and analyze data with respect to requirements to be imposed on domestic transportation and storage systems and facilities and with respect to the ability of such systems and facilities to satisfy such requirements.

(b) Formulate such plans and programs, and take such actions, as may be desirable to meet requirements for domestic transportation and storage, including, among other things, programs and measures for increasing the efficiency and obtaining maximum utilization of domestic transportation and storage systems and facilities and for providing additional transportation and storage facilities.

(c) Coordinate and direct the domestic movement of passenger and freight traffic in cooperation with the Interstate Commerce Commission and private transportation organizations and agencies.

(d) Allocate the use of domestic transportation and storage facilities by operators thereof, and allocate domestic transportation and storage services to the users thereof.

(e) Administer such priorities as may be necessary to insure the movement of essential traffic, subject to such policies and orders as the Defense Production Administrator may prescribe.

(f) Act as claimant for materials and manpower for the construction, operation, maintenance, and repair of domestic transportation and storage systems and facilities.

(g) Cooperate with the Secretary of Commerce, the Secretary of Defense, and the Secretary of the Interior, to achieve the effective coordination of inland and ocean transportation and the efficient operation of all port facilities to meet military and civilian requirements.

(h) Cooperate with the Secretary of Defense and the Administrator of General Services to achieve the effective coordination and utilization of storage facilities.

(i) Utilize the services of the Interstate Commerce Commission and of such other federal, state, and local agencies as he deems desirable in the performance of his functions.

"Domestic transportation" as used in the order is defined as not including transportation by air, pipeline, or coastal or intercoastal shipping. Other parts of the order spell out the Secretary of Commerce's responsibilities in the fields of shipping and ship construction, air transport, and highways; those of the Secretary of the Army with respect to rivers and harbors and inland waterways; those of the Secretary of the Interior with respect to pipelines; and those of the Secretary of the Treasury with respect to aids to navigation.

Meanwhile, D.T.A. Administrator Knudson had issued an order providing for his agency's permanent organization. Following generally the lines of the organization as it has been up to this time, the order provides that the internal organization of D.T.A. shall consist of offices of the administrator, deputy administrator, executive assistant, and general counsel; and seven divisions—Railroad Transport, Street and Highway Transport, Inland Water Transport, Warehousing and Storage, Port Utilization, Equipment and Materials, and Manpower. Also included are a Tax Amortization and Defense Loan Branch and information and administrative officers. The order is Organization Order D.T.A. 1, Amendment 1, effective as of February 15.

### Philadelphia-Macon L.C.L. Pool Proposed By Roads

A plan for pooling of l.c.l. freight service between Philadelphia, Pa., and Macon, Ga. has been proposed by five roads in an application filed with the Interstate Commerce Commission.

The Pennsylvania; Richmond, Fredericksburg & Potomac; Atlantic Coast Line; Seaboard Air Line; and Central of Georgia propose to operate daily l.c.l. service from Philadelphia to Macon.

### B.R.T. NO-STRIKE ORDER NOW PERMANENT

A permanent injunction restraining the Brotherhood of Railroad Trainmen from further strike action was signed in Chicago by Federal Judge Michael L. Igoe on February 26. The injunction, which follows the pattern set down by the temporary restraining order issued last December when the "sickness" strikes by B.R.T. switchmen first began, will remain in effect as long as the railroads continue under government control.

The government's second contempt case against the union was dismissed by Judge Igoe on February 20. The second set of charges was based on disobedience of the same restraining order during the second "sickness" walkout which lasted generally from January 30 to February 9. It is understood that action on the government's request to drop a similar contempt case against the B.R.T. in Cleveland, Ohio, has been postponed.

Shipments would move by either of two routes, alternating from week to week. In each case the P.R.R. and R.F.&P. would handle the shipments as far as Richmond, Va. From that point they would go via A.C.L. to Augusta, Ga., and Central to destination, or via S.A.L. to Athens, Ga., and Central to destination.

### Rail-Ship-Truck Terminal Planned for Jersey City

Plans for a \$150,000,000 ship-rail-truck terminal in the Craven Point section of Jersey City, N. J., have been approved by the city. The terminal, to be built on city-owned land said to be 60 per cent under water, will be built on a 49-year lease arrangement by the Foundation Company, New York. Docking facilities for 12 ships, with adjoining railroad and truck loading areas, would be provided by the facility.

### RRs Should Be Dealt with as Defense Industries—Faricy

Railroads should be recognized and dealt with as defense industries in allocation of available materials and manpower, William T. Faricy, president of the Association of American Railroads, said on March 1 at a luncheon meeting of the Chamber of Commerce of the state of New York. Transportation for defense is just as essential as any other part of the business of supplying arms, equipment, ammunition or any other form of munitions to the organized military forces, he added.

Sufficient steel to meet requirements for construction of new freight cars and locomotives and for necessary maintenance is essential if railroads are to meet transportation requirements of the national rearmament program, Mr. Faricy declared. To meet present and anticipated needs, he said, railroads have on order more than 144,000 new freight cars, the largest backlog in history. In addition, he continued, railroads have sharply increased the percentage of their cars in serviceable condition and will increase it further. "A year ago, when there was a surplus of more than 200,000 cars," Mr. Faricy pointed out, "8.4 per cent of freight cars were awaiting repair. This month, bad order cars are down to 5 per cent, and, if the flow of parts and materials for repair work is maintained, will be reduced still further."

"There is no way in which, ton for ton, materials can be used to better advantage in increasing the effective transportation capacity of the United States than by adding to the freight car and locomotive supply of the railroads," he stated. To illustrate the economy inherent in mass transportation by rail, he cited the requirements in manpower and fuel to move 100,000 tons of freight from coast to coast. "You can move 100,000 tons from coast to coast with 90 tank cars of diesel



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\$140,000,000 more to increase its all-weather, Diesel-electric locomotive fleet by 400%!

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fuel. To move that 100,000 tons by truck would require 250 tank cars of diesel fuel, nearly three times as much. To do the job by air would take the contents of 2,700 tank cars of aviation fuel, or 30 times as much. When it comes to manpower, the comparison is even more striking. To do the job by railroad would require 3,500 man-days of train-crew time. To do it by truck would take 90,000 man-days of truck-driver time. And to complete the job by air would require 50,000 man-days of plane-crew time."

For railroads to put themselves in position to meet transportation demands of rearmament along with essential civilian needs, adequate revenues are also necessary, Mr. Faricy emphasized. "When people talk about high freight rates, they overlook the tremendous increases which have taken place in other things in the last decade. Cumulative [rate] increases authorized by public authority during the past 10 years amount to only 57 per cent, and the ton-mile revenue of the railroads has increased on the average only 39 per cent. On the other hand, railroad wage rates have gone up 112 per cent in the last decade and the things the railroads buy now cost 126 per cent more than they did 10 years ago."

"The rate of return on investment of the railroads last year was only 4.22 per cent," he added, "and for the five years since the end of World War II, when the railroads handled by far the greatest peacetime traffic in their history and did it with increasing efficiency, the rate of return has averaged only about 3½ per cent. This is not enough to keep the railroads in the health and vigor which the economy and defense of the nation demand."

### Pantasote Shades

Window shades in dome-lounge and dining cars built by the Pullman-Standard Car Manufacturing Company for the Atchison, Topeka & Santa Fe, as described in the February 19 *Rail-*

*way Age*, were not of Goodall design and construction, as implied in the article. The shade material, supplied by the Pantasote Company, Chicago, utilized Goodall fabrics cemented to a second fabric with Pantasote coating on the outer side. Shade material of this type is exclusively a Pantasote product.

### Freight Car Loadings

Loadings of revenue freight in the week ended February 24 totaled 734,794 cars, the Association of American Railroads announced on March 1. This was a decrease of 5,763 cars, or 0.8 per cent, compared with the previous week; an increase of 188,087 cars, or 34.4 per cent, compared with the corresponding week last year; and an increase of 46,666 cars, or 6.8 per cent, compared with the equivalent 1949 week.

Loadings of revenue freight for the week ended February 17 totaled 740,557 cars; the summary for that week, as compiled by the Car Service Division, A.A.R., follows:

REVENUE FREIGHT CAR LOADINGS For the week ended Saturday, February 17			
District	1951	1950	1949
Eastern .....	136,038	107,040	134,568
Allegheny .....	155,073	110,990	150,551
Pocahontas .....	58,621	20,643	56,381
Southern .....	137,568	105,775	122,912
Northwestern .....	74,975	70,173	71,578
Central Western .....	119,699	93,391	104,140
Southwestern .....	58,583	52,056	57,205
<b>Total Western Districts .....</b>	<b>253,257</b>	<b>215,620</b>	<b>232,923</b>
<b>Total All Roads .....</b>	<b>740,557</b>	<b>560,068</b>	<b>697,335</b>
<b>Commodities:</b>			
Grain and grain products .....	48,724	38,209	37,806
Livestock .....	7,134	7,147	7,640
Coal .....	149,857	48,831	147,860
Coke .....	15,857	10,520	16,168
Forest products .....	46,453	35,521	35,106
Ore .....	16,940	11,545	13,969
Merchandise l.c.l. .....	80,263	82,046	94,676
Miscellaneous .....	375,329	326,249	344,110
February 17 .....	740,557	560,068	697,335
February 10 .....	573,163	568,816	699,442
February 3 .....	651,124	612,464	682,143
January 27 .....	784,185	635,934	679,302
January 20 .....	779,816	619,163	709,837
<b>Cumulative total 7 weeks .....</b>	<b>4,974,314</b>	<b>4,131,741</b>	<b>4,923,431</b>

**In Canada.**—Carloadings for the week ended February 17 totaled 73,685 cars, compared with 70,407 cars for the previous week, and 71,644 cars for the corresponding week last year, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd. from Connections
<b>Totals for Canada:</b>		
February 17, 1951..	73,685	35,892
February 18, 1950..	71,644	27,497
<b>Cumulative totals for Canada:</b>		
February 17, 1951..	511,777	239,585
February 18, 1950..	458,722	196,584

### "Jim Crow" Complaint Dismissed By I.C.C.

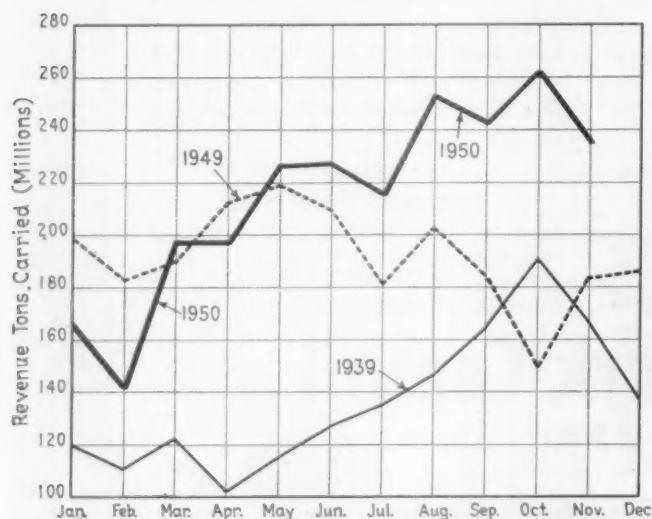
The Interstate Commerce Commission has dismissed the racial discrimination complaint filed against the Pennsylvania and the Seaboard Air Line by Lillie Belle Perez, a Negro living in New York. The commission's dismissal order said attorneys for the complainant entered a stipulation asking that the case be discontinued.

The complainant had alleged that she was subjected to discrimination "against her will and solely because of her color" while traveling from New York to Tampa, Fla., on the "Silver Meteor" in April 1948. (See *Railway Age* of September 23, 1950, page 42.)

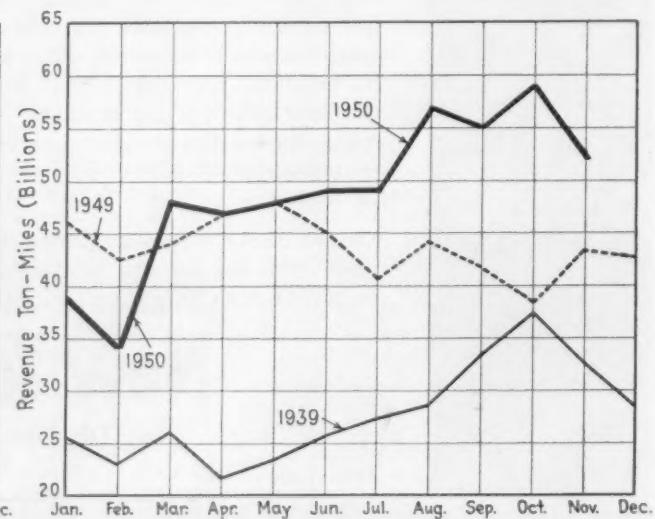
### Gass Says Car Supply Is Up But Shortages Remain

There was a net gain of 1,079 in car ownership on Class I roads in January, marking the second straight month in which installation of new cars exceeded retirements, Arthur H. Gass, chairman of the Car Service Division of the Association of American Railroads, reported in his latest review of the "National Transportation Situation."

Retirements for the month totaled 4,369, while 5,448 new cars were placed in service, Mr. Gass said. He added, however, that the number of new cars installed is still "disappoint-



REVENUE TONS AND REVENUE TON-MILES—1950 compared with 1939 and 1949





# Look what's ahead-Southwest

**Diesels...Diesels and more Diesels  
to give you better, faster, smoother  
freight and passenger service.**

1951 will see us *really* on the run...  
on the run with Diesel power on all  
major freight and passenger trains.

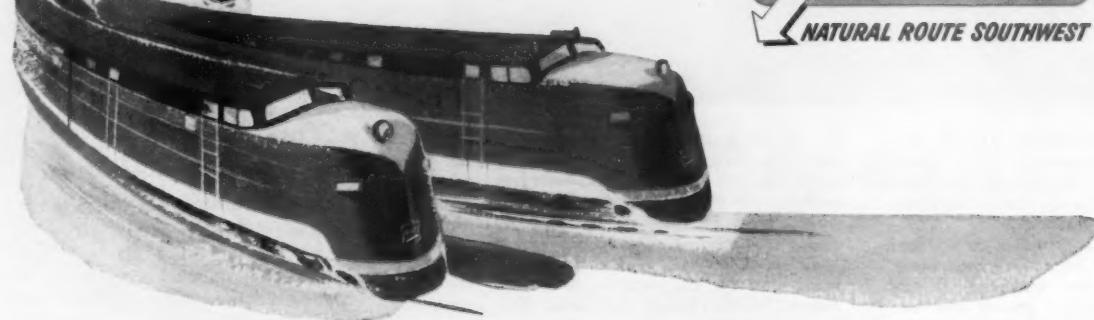
Yes sir, we're "re-doing" Katy  
service...blending the MODERN  
and the TRADITIONAL...the  
modern, heavy duty smooth hauling  
efficiency of new, giant road Diesels  
with the traditionally reliable Katy  
service the Southwest has known right  
down the line, for almost 80 years.

And, that's not all. There'll be more  
Diesel yard switchers working to shave  
minutes from terminal transferring  
times. There'll be many equipment and

service improvements to speed your  
receiving dates...simplify your  
shipping schedules.

The Katy is quickening the pace.  
Stepping up the action for a vigorous  
Southwest of an alerted nation. In  
1951 we continue expanding our serv-  
ice to you...This is our answer to  
your transportation problem.

*Your local Katy representative will be glad  
to tell you even more about Katy's many new  
plans...and how you may benefit by  
shipping Katy, Southwest.*



ingly low" and far below the 10,000-car per month goal set for early 1951. Only by holding retirements to the lowest number since February 1948 were the roads able to effect an increase in ownership.

As of February 1 there were 3,800 fewer cars held for repairs than on January 1 and about 56,000 fewer than on February 1, 1950, Mr. Gass reported. This reduction in bad orders has given the roads about 28,000 more serviceable cars than they had a year ago, he said.

Meanwhile, Mr. Gass had noted that as of February 1 the Class I roads had an all-time record high of 132,528 freight cars on order. This figure was somewhat under the number reported by the American Railway Car Institute, whose figures include not only Class I roads but private car lines and smaller railroads as well. The institute reported 144,758 cars on order February 1.

Locomotive installations in January totaled 219, including 218 diesel-electrics, Mr. Gass said. He added that during the month diesel ownership passed the 10,000 mark, and that it now consists of 14,458 units operated as 10,033 locomotives.

Turning to a discussion of the car situation, Mr. Gass said recent work stoppages "aggravated an already acute situation" with respect to box cars. The end of the stoppages found roads with an unprecedentedly high

percentage of loaded cars compared to total ownership, resulting in increased shortages despite a drop-off in loadings.

Westbound movement of empty box cars was slowed to almost nothing by work stoppages at principal terminals, the C.S.D. chairman said. The daily average of 821 empty cars a day being delivered to western roads was slowed to an average of 293 cars a day for the first 15 days of February. Effective February 19 quota orders were issued under I.C.C. Service Order No. 866 to build up movement of empty cars to the west.

Canadian roads also suffered heavy losses as a result of the tie-up. Mr. Gass said losses on these roads became so great that Special Car Order No. 76 was amended effective February 20 to require eastern and Allegheny roads to return these cars to owners empty.

Open top cars have also remained in short supply, Mr. Gass reported. He said coal loadings this year have been about 50 per cent above last year, when the mines were on a three-day work week or closed altogether. According to Mr. Gass there have been "some severe shortages" of hoppers while gondola-shortages have been "rather widespread." In Eastern-Allegheny territory the gondola situation has been "especially acute" due to unusual demands for steel, scrap iron, and import ore.

### Car Surpluses and Shortages

Average daily freight car surpluses and shortages for the week ended February 24 were announced by the Association of American Railroads on March 1, as follows:

	Surplus	Shortage
Plain Box	0	24,108
Auto Box	27	194
Total Box	27	24,302
Gondola	97	4,509
Hopper	8	3,302
Covered Hopper	0	26
Stock	647	32
Flat	0	1,106
Refrigerator	360	1,906
Other	192	62
	1,331	35,245

In discussing coal loadings, Mr. Gass said coal stocks at the head of the Great Lakes are about double the stocks there at this time last year. He said export movements of coal overseas have also increased heavily since the first of December, as have movements to Canada.

"The tentative program for lake ore this year is 90 million tons, just under the 1942 all-time record of slightly over 92 million," Mr. Gass said. He added that the all-rail movement of ore from the northwest to the Pittsburgh-Chicago-Youngstown districts this winter will amount to about 1½ million tons by the time lake navigation opens.

Continuing his discussion of the car supply, Mr. Gass said other types of cars are in heavy demand. The supply of both plain and special type flat cars is "tight" generally in all sections. A similar situation prevails with respect to covered hoppers, although no serious shortages of the latter have occurred, he said.

Average turn-around time of freight cars in January, as reported by Mr. Gass, was 15.67 days. The comparable figure for January 1950 was 19.12 days. On the basis of reports from 780 cities in all 13 shipper board districts, cars detained beyond the free time of 48 hours averaged 15.95 per cent of those placed in January. This compared with 16.31 per cent for December, and 19.22 per cent in January 1950.

The average percentage of detention for January was the lowest for any January since Shippers Car Efficiency Committees were organized in 1943. The next best record for January was in 1949 with an average detention of 16.86 per cent.

### New York Central Adds New L.C.L. Service

Coordinated rail-truck service to expedite l.c.l. merchandise freight each way between Jersey City, N.J., and 26 communities as far as Congers, N.Y., is being established by the New York Central on its West Shore (River divi-



IN ITS FIRST CANADIAN TESTS, one of the Budd Company's rail diesel cars recently made demonstration runs over Canadian National lines between Montreal, Que., and Quebec, Sherbrooke, Waterloo, Jonquiere and Ottawa, Ont. Shown here, in the usual order, inspecting the car are E. R. Battley, chief of motive power and car equipment for the C. N.; Griscom Bettle,

Jr., of the Budd Company; Donald Gordon, chairman and president of the C. N.; S. F. Dingle, vice-president, operation, of the C. N., and S. W. Fairweather, C. N. vice-president, research and development. The Budd rail diesel car has recently made demonstration runs also on the Boston & Maine between White River Junction, Vt., and Boston, Mass.

*Four Years of  
Proved Performance*



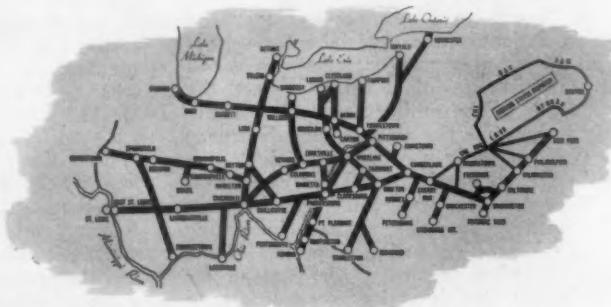
We're celebrating  
another birthday of  
**B&O's Sentinel Service!**

On March 3, 1947, Sentinel Service was inaugurated by the Baltimore & Ohio Railroad. Launched for the purpose of giving shippers a *siding-to-siding* service they could depend on, it achieved its goal immediately, and has maintained it ever since.

Shippers who use Sentinel Service can tie in with the plans and schedules of receivers with complete confidence.

The *Automatic Records* feature, too, is widely acclaimed; for now shippers and receivers are quickly notified of cut-outs and reforwardings.

As we celebrate this fourth birthday, the continued enthusiastic support of Sentinel Service by shippers and receivers is the most appreciated gift we could receive. *Ask our man!*



**BALTIMORE & OHIO RAILROAD**

Constantly doing things — better!

sion) line. Saving one or more days in shipping time, the new trucking service will provide a daily link between those outlying freight stations and the fast transfer point at Jersey City.

Stations in New Jersey benefiting from the service are Hoboken, Union City, Willow avenue (Hoboken), Weehawken, Edgewater, West New York, Guttenberg, Cliffside, Fort Lee, North Bergen, Little Ferry, Ridgefield Park, Bogota, Teaneck, West Englewood, Bergenfield, Dumont, Haworth, Harrington Park and West Norwood. In New York the stations are Tappan, Orangeburgh, Blauvelt, West Nyack, Valley Cottage and Congers.

### Argentina Drafts Rail Strikers Into Army

To end a recent three-day strike, the Argentine government is reported to have drafted all railway employees into the Army. Transport ministry officials were said to have been given military rank and ordered to compile lists of employees who failed to report for work. All of the latter, press dispatches state, were subject to arrest as deserters. More than 2,000 employees were reported to have been discharged for striking, while President Juan D. Peron is reported to have said that all strike instigators would be prosecuted, and that he would resign rather than reinstate "a single one." Their wage demands, the president was quoted as saying, would cost the state-owned railways some \$72.5 million at a time when "the railways are showing a larger deficit every day." Drafting of strikers was under a 1948 emergency law.

### OVERSEAS

**Iran.**—The Iranian State Railways have invited bids for supplying four ballast-crushing and ballast-screening machines, 60 wagonettes and 35 tricycles and four rail-welding and rail-repairing machines, according to a recent issue of *Foreign Commerce Weekly*. A list of specifications may be borrowed from the Iranian Embassy, Office of the Commercial Attaché, 3003 Massachusetts avenue, N.W., Washington, D.C. Requests for the list should refer to notification No. 19361-AKA.

**Pakistan.**—This country's government wishes to receive bids from American firms covering supply of class XA and XC locomotive boilers for the North Western Railway, according to *Foreign Commerce Weekly*. Specifications and bid documents may be obtained from the Pakistan Embassy, Commercial Division, 1744 R street, Washington, D.C., subject to a non-refundable charge of \$45 a set.

### CAR SERVICE

#### Heavy Loading of Grain Required by I.C.C. Order

Heavy-loading requirements for grain shipments will become effective March 15 under the provisions of Service Order No. 874 which has been issued by the Interstate Commerce Commission. When the order was made public February 28, the Defense Transport Administration issued a statement saying it had recommended issuance of the order and noting that it was the first heavy-loading order in the current defense program. But, D.T.A. added, "others are expected to follow as soon as surveys now in process can be completed and considered."

The order prohibits railroads from moving cars loaded with grain products or by-products unless such cars are loaded in accordance with one of the following requirements:

- (1) The quantity shall equal or exceed in weight the marked capacity in pounds of the car.
- (2) Grain products or by-products in bulk shall be loaded to an elevation not lower than 24 in. from the ceiling of the car at its side walls — or to the utmost elevation possible without overrunning sheathing or lining.
- (3) Grain products or by-products in packages shall be loaded to a weight of not less than 60,000 lb.
- (4) Cars loaded with grain in packages, in mixed carloads with grain in packages, shall be loaded to a weight of not less than 60,000 lb.
- (5) When such car is loaded to full visible capacity.

The order contains provisions for the issuance of permits to exempt shipments from its requirements. The permit agent is Howard S. Kilne, chief, Car Utilization Section, Bureau of Service, I.C.C., Room 5135 I.C.C. Building, Washington, D.C.

The statement which D.T.A. issued in connection with the service order included this comment from Administrator James K. Knudson:

"I am gravely concerned over the inadequacy of our freight car supply and stronger measures may be necessary in providing cars to meet the needs of the military and essential industry. For the week ending February 17, the daily shortage of freight cars averaged nearly 35,000 cars and what is especially significant is the fact that the daily shortage has been increasing week-by-week during a period of the year when normally, the demand for freight cars is at its lowest level and a comfortable surplus usually exists.

"The shortage of cars for the shipment of grain is particularly acute, and just this past week-end several large flour and feed mills were compelled to suspend milling operations because of the shortage of cars for shipping their products. We have had prior consultations with representatives of the flour and feed industry whose counsel and advice have been of assistance to us in

framing our recommendations to the Interstate Commerce Commission."

I.C.C. Service Order No. 865, which imposes increased demurrage charges running up to \$20 per day, has been modified by Amendment No. 6. The amendment vacated, as of March 1, Amendment No. 4 which had exempted refrigerator cars from provisions of the order.

### ORGANIZATIONS

**The Perishable Freight Agents Association of New York**, composed of railroad representatives soliciting business destined for wholesale markets in the New York metropolitan area, recently was reactivated. A. P. Flood, dairy traffic agent of the Pennsylvania, was elected to the presidency for a one-year term. Other elected officers are J. G. Rausch, perishable freight agent, Southern Pacific, vice-president; J. P. Fitzpatrick, perishable traffic agent, Illinois Central, treasurer; and P. E. Johnson, traffic agent, Chicago Great Western, secretary. The next meeting of the group will be held on March 8, at 12 noon, at the Hotel Abbey, New York.

The 28th annual meeting of the **Great Lakes Regional Advisory Board** will be held in the Hotel Statler, Buffalo, N.Y., on March 27 and 28.

**The Eastern Car Foreman's Association** will hold its next meeting in the Engineering Societies Building, New York, at 7:45 p.m. on March 9. Wade M. Wilkes, of the Safety Car Heating & Lighting Co., will speak on "Problems of Civilian Defense."

**The New England Shippers Advisory Board** will hold a two-day meeting at the Hotel Statler, Boston, Mass., on March 15-16. Arthur H. Gass, chairman of the Car Service Division of the Association of American Railroads, will be the guest speaker at the luncheon on March 16. His subject will be "Where Do We Go From Here?"

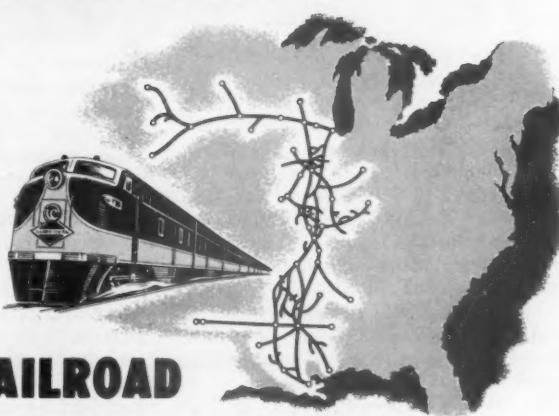
A "Perfect Shipping Night" will be held by the **Transportation Club of Decatur**, Ill., on March 13. F. A. Kilker, freight claim agent for the Chicago, Burlington & Quincy, will be the principal speaker, following a dinner scheduled for 6:30 p.m. at the Orlando Hotel.

"Plant Protection in the Atomic Age" will be the theme of the **Clearing-Cicero Traffic Conference's** 14th annual dinner meeting, to be held in the Clearing (Ill.) Industrial Club at 6455 S. Central avenue, Chicago on March 8. Frank V. Martinek, chairman of the plant protection committee of the Chicago Civil Defense



## Power for the Main Line

The Illinois Central starts its second century as the Main Line of Mid-America well-equipped for the job of hauling mile-a-minute dispatch freights, and 100-mile-an-hour passenger streamliners. Some 1,262 steam and diesel locomotives handle two million carloads of freight and four million through passengers annually.



## THE ILLINOIS CENTRAL RAILROAD

*For 100 Years - the Main Line of Mid America*

Corps, will be the principal speaker. His talk will be followed by the sound film "Pattern for Survival."

The Niagara Frontier Industrial Traffic League of Buffalo, N. Y., has elected the following officers for the year 1951: President, Victor A. Raham, traffic manager, Niacet Chemical Division, Niagara Falls, N. Y.; first vice-president, Edward F. Lannon, traffic manager, Columbus McKinnon Chain Corporation, Tonawanda, N. Y.; second vice-president, Bernard A. Bonanza, traffic manager, J. W. Clement Company, Buffalo; treasurer, Frank C. McGinley, Western Electric Company, Buffalo; general secretary, Elmer W. Honecker, traffic manager, Trico Products Company, Buffalo; and secretary, George P. Zier, assistant traffic manager, Buffalo Chamber of Commerce. Edwin A. Dill, of Buffalo, traffic manager of the Industrial Molasses Company, is the retiring president.

Tulane University's second annual Institute on Foreign Transportation and Port Operations will be held in New Orleans, La., March 26-30, under the general direction of Dr. Marvin L. Fair, professor of economics and transportation at the university. Twenty-one agencies and organizations concerned with foreign transportation, plus railroads and steamship lines serving the Gulf area, are cooperating with the university in arranging the course. Railroad men assisting with it include O. C. Stein, freight traffic manager of the Illinois Central at New Orleans; Edward J. Garland, general manager of the New Orleans Public Belt, and E. S. Pennebaker, manager of the Texas Pacific-Missouri Pacific Terminal of New Orleans. The fee for the course, which is designed principally for junior executives, is \$57.

## SUPPLY TRADE

### Westinghouse 1950 Net Equals \$5.36 Per Share

Net income of the Westinghouse Electric Corporation for 1950 amounted to \$77,922,944, which was equal, after payment of dividends on preferred stock, to \$5.36 a share on 14,190,654 shares of common stock. The previous record year was 1949, when net income was \$67,268,555, or \$4.95 a share on the 13,144,519 shares of common stock then outstanding. Net sales billed for 1950 also set a new record, totaling \$1,019,923,051, compared with \$945,699,382 in 1949 and \$970,673,847 in the previous record year of 1948.

The 1950 net income was equal to a return of 7.6 per cent of net sales billed, the highest for any postwar year. In 1949, ratio of net income to net sales billed was 7.1 per cent.

Current assets on December 31, 1950, were \$604,094,899 and current liabilities were \$148,222,389, resulting in working capital of \$455,872,510.

### Standard Ry. Equipment Net Was \$2,609,420

The Standard Railway Equipment Manufacturing Company has reported consolidated net profit of \$2,609,420 for 1950, compared with \$2,305,853 in 1949. Net sales of \$19,447,461 in 1950 compared with \$17,293,914 the year before. Net profit for 1949 is adjusted from that previously reported to reflect state income and franchise tax adjustments. R. A. Williams, president, said unfilled orders at December 31, 1950, amounted to \$28,300,000, compared with \$2,800,000 a year earlier.

**Donald F. Kittredge** has been appointed manager of sales, Railway division, of the **National Malleable & Steel Castings Co.**, with headquarters at New York. He succeeds **Ellsworth H. Sherwood**, whose election as assistant vice-president, sales, Railway division, was announced in the *Railway Age* of February 5. Mr. Kittridge was born in Sharon, Pa., and was



Donald F. Kittredge

graduated from Cornell University in 1939. He served as a naval officer during World War II, joining National Malleable at Indianapolis, Ind., in 1946. He was transferred to the Railway division at Cleveland, Ohio, where he served as assistant sales manager, which position he held at the time of his recent promotion.

**C. H. Morse, Jr.**, has been appointed manager, locomotive service department, Railroad division, of **Fairbanks, Morse & Co.**, effective April 1. Mr. Morse will succeed **J. E. Justus**, who will at that time have completed 25 years of employment with the company and who is retiring. Mr. Justus will devote part time to the firm on a special assignment basis, with the title of special assistant to manager of the railroad division. Mr. Morse has for the past 18

months served as assistant manager of the department, and also more recently as district manager of locomotive sales in the Chicago district. His headquarters will be in the firm's Chicago office, 600 South Michigan avenue.

**Frank L. Murphy**, formerly chief engineer of the **Pullman-Standard Car Manufacturing Company**, has joined the company's sales staff at Washington, D. C., as assistant vice-president. Mr. Murphy began his business career with Pullman-Standard as a draftsman at the passenger car shops at Chicago in 1922, following graduation from Purdue University's engi-



Frank L. Murphy

neering school. In 1935 he was appointed principal engineer directing design and development of light weight streamline trains. From 1942 until 1950 Mr. Murphy served as chief engineer of the company, directing all engineering, including design, experimental and research work on railroad passenger cars, freight cars and street transit equipment.

**Speco, Inc.**, has opened an eastern district sales office at 30 Church street, New York 7. The office will be directed by **David M. Waterhouse**, district manager, formerly manager of Speco's transportation industry sales.

**D. W. Moor, Jr.**, president of the American Mat Corporation and the D. W. Moor Company, Toledo, Ohio, and vice-president of the Toledo Rubber Products Corporation, has also been elected president of the **Lithox Corporation**, Wapakoneta, Ohio.

The **McDougall-Butler Company**, of Buffalo, N. Y., has appointed **Stanley O. Kent** as industrial sales representative in charge of industrial paint sales in the Niagara Frontier area.

**James E. McNamara** has been appointed vice-president of the **Journal Box Servicing Corporation**, Indianapolis, Ind. Mr. McNamara recently resigned as vice-president of reclamation for Peerless Equipment Company. **Thomas W. Potter**, for-



SHIPPED THIS WAY...

**Bulk Cement  
can be unloaded  
safely—even  
in a downpour!**

**50 TONS OF CEMENT** that the weather can't harm! Lackawanna's Air-Activated Containers may be lifted from cars and trucked to final place of delivery, or unloaded by air from siding into a storage bin. 



Come rain, windstorm or blizzard, bulk cement always arrives in first-class condition when it's shipped in Lackawanna's Air-Activated Containers.

These weathertight steel containers, each with 10-ton capacity, require no special loading equipment. Unloading by consignee requires only a compressor and a 1½ inch air line from container to storage bin or construction site. There is no loss through dust or blowing. Risk of silicosis among workers is eliminated.

Whether it's cement or other bulk freight, packaged goods or perishables, modern Lackawanna efficiency adds up to preferred handling for your shipments. That's why so many of the world's great shippers specify the Lackawanna Railroad—to or through New York.

**Lackawanna Railroad**

**SHIPPERS WHO ARE IN THE KNOW, CHOOSE THE ROUTE**



**OF PHOEBE SNOW**

merly special representative for the Journal Box Servicing Corporation, has been promoted to vice-president—operation. Mr. Potter will maintain his offices jointly with Mr. McNamara at 332 South Michigan avenue, Chicago.

The **Pyle-National Company** has completed construction of two new additions and building changes to its main manufacturing plant in Chicago. The new additions total 28,000 sq. ft. of floor space and will substantially increase manufacturing, maintenance and warehousing operations of the company.

**John F. Thompson**, president of the **International Nickel Company of Canada**, has been elected also chairman, to succeed the late **Robert C. Stanley**.

#### OBITUARY

**Robert E. Thayer**, vice-president and a director of the Simmons-Boardman Publishing Corporation, died in an automobile accident on February 25. Mr. Thayer was born in Chelsea, Mass., on August 4, 1883. After graduation from the Massachusetts Institute of Technology he became a special apprentice with the American Locomotive Company, and later was an instructor for two years at M.I.T., and a draftsman for one year on the Boston & Maine. He became associated with the Simmons-Boardman Publishing Corporation in 1911 as associate editor of the *Railway Age Gazette* (now *Railway Age*). In 1917 he was appointed mechanical department edi-



Robert E. Thayer

tor of *Railway Age* and managing editor of *Railway Mechanical Engineer*, and in 1919 was made European editor of *Railway Age*, with headquarters at London, England. On his return to this country in 1922 he was transferred to the sales department and in 1929 became business manager of *Railway Mechanical Engineer*, a position he held until 1947. In 1937 he was elected a vice-president of the company. He was business manager of the *Locomotive Cyclopedias* and the *Car Builders' Cyclopedias*, both published by Simmons-

Boardman. He was a member of the American Society of Mechanical Engineers.

**Lewis H. Brown**, chairman of the board and chief executive of the Johns-Manville Corporation, died of a heart ailment on February 26, at Delray Beach, Fla.

## CONSTRUCTION

### N. Y. & L. B. to Replace Wooden Trestle at Matawan

The 1,000-ft. single-track wooden trestle on the New York & Long Branch at Matawan, N. J., will be replaced by a double-track structure, either of concrete and steel or an earth fill. E. T. Moore, president of the Central of New Jersey, said in a message to a public hearing in Asbury Park, N. J., before the state board of Public Utility Commissioners, on February 26. Mr. Moore was unable to be present, because of illness, and his statement was read by Herman V. Pevler, vice-president of the Pennsylvania and of the N. Y. & L. B., which is jointly owned by the P.R.R. and the C. of N.J. Although the carriers involved "have never had any doubt that the Matawan bridge is absolutely safe and entirely adequate," Mr. Moore's statement said, they "continue to be greatly concerned because of the fears of a great many people . . . and in recognition of the unusual circumstances that surround this situation, we have decided to recommend to our boards of directors that the bridge be replaced." Engineering studies are under way to determine which of the two types of replacement will be more feasible.

**Atchison, Topeka & Santa Fe.**—A wood frame car repair shed 66 ft. by 360 ft., will be constructed at Hobart yard, Vernon, Cal., by the Wm. P. Neil Company of Los Angeles.

**Chesapeake & Ohio.**—This road has awarded contracts at the indicated probable costs to: The S. N. Nielsen Company, Chicago, for construction of a diesel shop building at Huntington, W. Va. (\$375,000); the Chicago Bridge & Iron Co., Chicago, for six fuel oil storage tanks erected on prepared foundations—three at Ashland, Ky. (\$28,900), two at Clifton Forge, Va. (\$19,600), and one at Charlottesville, Va. (\$10,400); and the Robertson-Henry Company, Huntington, for grading and drainage for a grade and line change project at Ivyton, Ky. (\$20,000).

Authorized projects, and their probable costs, include: Constructing a diesel locomotive shop and other facilities for servicing diesels at Huntington (\$757,000, of which part has been contracted for, see above); shop, water and fuel oil facilities for serv-

icing passenger diesels at Charlottesville (\$227,300, of which part has been contracted for, see above); water and fuel oil facilities for servicing passenger diesels at Ashland (\$164,900), and at Clifton Forge (\$109,200, parts of which have been contracted for, see above); installing reflectorized signs at grade crossings in West Virginia (\$103,200); repairing bridge No. 90 at Ashford, W. Va. (\$94,300); track changes because of flood wall construction at Ashland (\$79,000); line and grade change at Ivyton (\$62,000, part of which has been contracted for, see above); installing centralized traffic control from Bremo, Va., to Strathmore (\$29,800); track for coal mine development at Peytona, W. Va. (\$22,700); and providing diesel locomotive servicing facilities in engine-house at Fulton, Va. (\$22,200).

**Pacific Fruit Express.**—This company will build a \$1,000,000 artificial ice plant at Laramie, Wyo. The project, which will supplant present use of natural ice, includes installation of refrigeration equipment in existing ice storage houses, installation of newly designed ice delivery facilities between storage rooms and icing platforms, and construction of a one-story reinforced concrete building, 96 ft. by 180 ft., to house ice manufacturing equipment. Work is to begin early in April and is scheduled for completion by early fall.

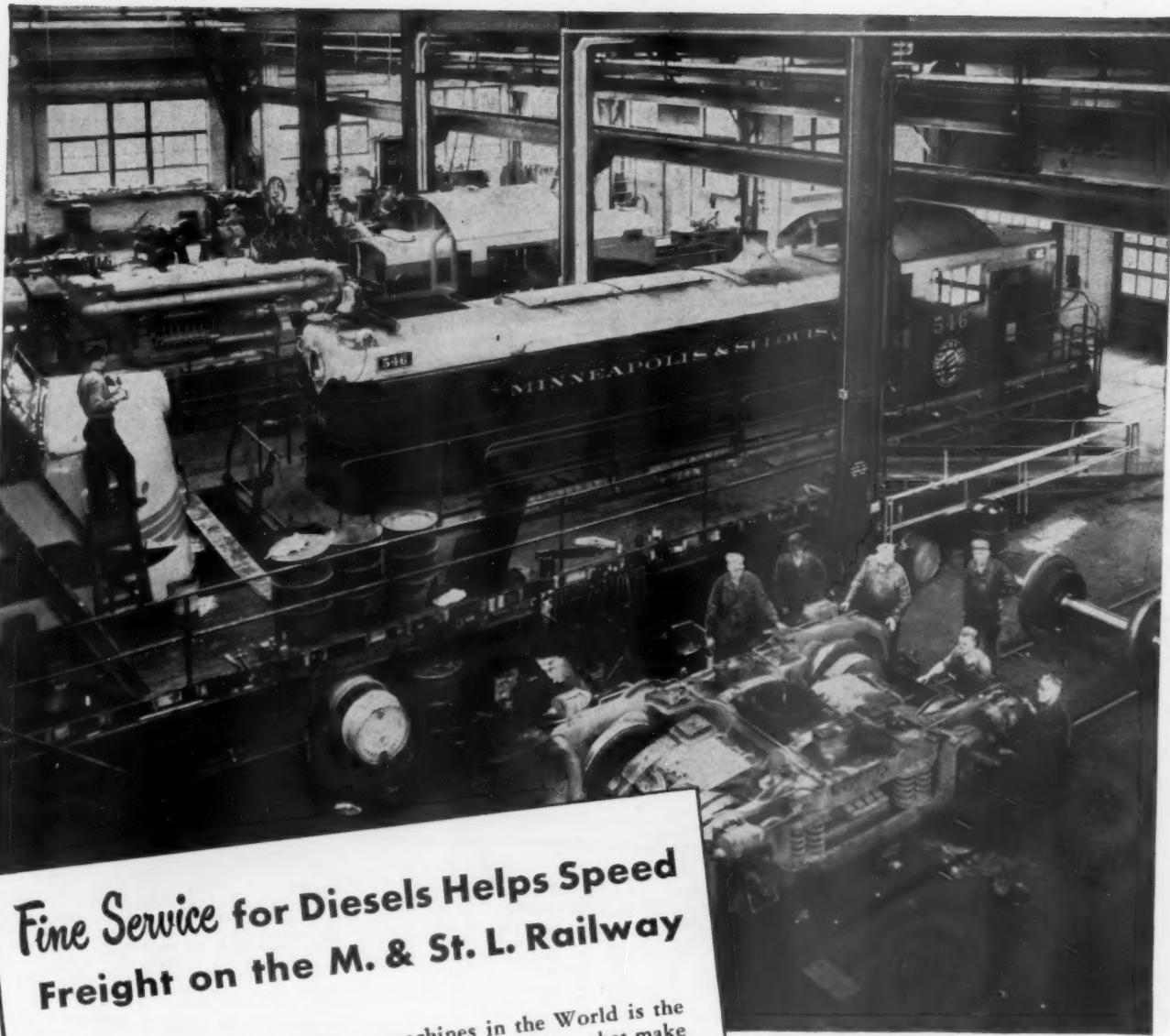
The decision to convert to artificial ice was based primarily on high labor costs for handling natural ice and the necessity each year for supplementing the available natural ice with 40,000 tons of ice shipped from elsewhere, K. V. Plummer, P.F.E. vice-president and general manager, said. Laramie is the principal point on the Union Pacific for applying fresh retop ice on perishable shipments, he added, and the purity of artificial ice is highly desirable for this service.

## EQUIPMENT AND SUPPLIES

### Domestic Equipment Orders Reported in February

Domestic orders for 15,129 freight cars, 170 diesel-electric locomotive units and six steam locomotives were reported in *Railway Age* in February. The freight cars cost an estimated \$83,210,000 and the locomotives an estimated \$27,909,000. An accompanying table lists the orders in detail.

During the first two months of 1951, *Railway Age* has reported domestic orders for 27,299 freight cars (costing an estimated \$149,420,000), 245 diesel-electric locomotive units and six steam locomotives (costing an estimated \$37,-



## Fine Service for Diesels Helps Speed Freight on the M. & St. L. Railway

ONE OF the finest, most efficient machines in the World is the Diesel-electric Locomotive of today. One of the things that make it more efficient—and economical—than the steam engine is the fact that it needs less service and fewer repairs.

But the work the Diesel *does need* must be the best, if it is to do the great transportation job of which it is capable. That is the sort of care that Diesels get on

### The Minneapolis & St. Louis Railway

In new buildings, scientifically designed and equipped, skilled mechanics do the work on the large and growing fleet of M. & St. L. Diesels. One Diesel House is at the Cedar Lake Terminal in Minneapolis, headquarters city of the M. & St. L. since its beginning 80 years ago. Another, similar in design but even newer, is at Marshalltown, Iowa, where the Railway's principal car shops are located.

In 1951, Diesel Locomotives are powering all M. & St. L. Trains. The modern Diesel Shops are helping the M. & St. L. to maintain its reputation for

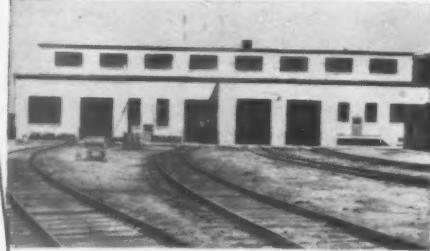
*Fast Dependable Freight Service in the Great Midwest*



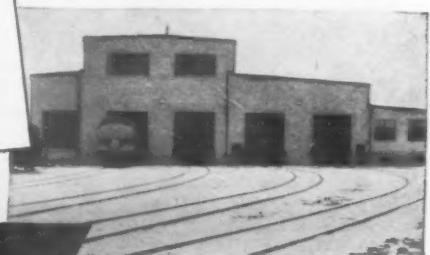
## The Minneapolis & St. Louis Railway

*Fast Freight Service via the Peoria Gateway*

Interior of Minneapolis Shop



Cedar Lake Diesel Shop in Minneapolis



The Marshalltown Shop

872,000), and five passenger cars (estimated cost \$750,000).

### FREIGHT CARS

The Canadian National has ordered 50 steel-framed box cars from the Eastern Car Company at an approximate cost of \$275,400. Delivery is scheduled for the latter part of this year.

The Chesapeake & Ohio has ordered an additional 200 70-ton covered hopper cars from the Pullman-Standard Car Manufacturing Company at an estimated cost of \$1,400,000. Delivery is scheduled for 1952.

### LOCOMOTIVES

The Akron & Barberton Belt has ordered one 1,200-hp. diesel locomotive switching unit from the Baldwin-Lima-Hamilton Corporation.

The Calumet & Hecla Consolidated Copper Co. has ordered one 1,200-hp. diesel-electric switching locomotive unit from the Baldwin-Lima-Hamilton Corporation.

The Sharon Steel Corporation has ordered eight 800-hp. and one 1,200-hp. diesel-electric switching locomotive units from the Baldwin-Lima-Hamilton Corporation.

The Wabash has ordered two 1,200-hp. diesel-electric locomotive switching units from the Baldwin-Lima-Hamilton Corporation.

### PASSENGER CARS

The Chicago, Burlington & Quincy, the Denver & Rio Grande Western and the Western Pacific are inquiring for 22 stainless steel sleeping cars. The equipment includes 12 6-section-6-roome-4-double bedroom cars, six 6-double bedroom-5-compartment cars (three for the Burlington, two for the W.P. and one for the D. & R. G. W.), two 6-double bedroom-10 roome cars, one dome-room-observation car and one 16-section car.

### SIGNALING

The Canadian National has ordered from the Union Switch & Signal Co. material to install centralized traffic control on 148 mi. of single track between Hornepeyne, Ont., and Foley. The territory will be controlled by a style C machine. In addition to code and carrier equipment, the order includes style H-2 searchlight high and dwarf signals, M-23B electric switch machines, switch circuit controllers, relays and transfor-

mers. Field installation will be handled by railroad forces.

The Long Island has ordered automatic speed control equipment costing \$1,180,910 from the Union Switch & Signal Co., it has been announced by Frank H. Simon, the road's general manager. "These orders cover the cab signal and speed governor devices which will be installed in electric multiple-unit motor cars and on locomotives," he added. "The work of installing these devices . . . including the miscellaneous material needed for the installation, will cost an estimated \$1,168,922." Wayside equipment in the L. I.'s \$6,000,000 safety program (see *Railway Age* of January 15, page 247), will be ordered as soon as detailed requirements have been worked out by engineers of the road and the signal company, Mr. Simon said.

### SPECIAL

The Transportation Corps, United States Army, has ordered 63 hospital cars from the St. Louis Car Company. Deliveries are to begin next September and be completed in January, 1952.

## ABANDONMENTS

Division 4 of the I.C.C. has authorized:

**IRONTON.**—To abandon a 390-ft. portion of its Siegersville branch, from Siegersville station to the end of the line. The segment has been operated under lease by the Lehigh Valley and the Reading.

**PENNSYLVANIA.**—To abandon its ferry line across the Hudson river between Cortlandt Street, New York, and Jersey City, N. J. "The record is clear that the advent of competitive transportation facilities has resulted in the accrual of substantial annual losses to the applicant," Division 4 said.

## FINANCIAL

**Chesapeake & Ohio.**—*Sale of Stock.*—This road has applied to the I.C.C. for authority to sell 112,500 shares of its common stock to 24 of the road's top executives. The stock, now held in the C.&O. treasury, would be offered to key executives under a stock option incentive plan. The purpose of this plan, as outlined in the application, is "to secure to the company the advantage of the incentive inherent in stock ownership by key officers responsible for the continued success of the company, and to create in such key officers a proprietary interest in and greater concern for the welfare of the company." Proceeds from sale of the stock would be used for capital expenditures.

The plan lists by name and position those executives who would be permitted to participate. It also desig-

### Locomotives

Purchaser	No.	Type	Issue	Reported	Builder
A. C. & Y.	3	1,600-hp. Rd.-Switch.	Feb. 12	Fairbanks, Morse	
C. & N. W.	30	1,500-hp. Rd.-Switch.	Feb. 19	Electro-Motive	
	4	2,250-hp. Passenger	Feb. 19	Electro-Motive	
	4	1,600-hp. Freight	Feb. 19	American-G. E.	
	5	1,600-hp. Rd.-Switch.	Feb. 19	American-G. E.	
	7	1,000-hp. Switching	Feb. 19	American-G. E.	
	6	660-hp. Switching	Feb. 19	American-G. E.	
	2	1,600-hp. Rd.-Switch.	Feb. 19	Bald.-Lima-Ham.	
	4	1,200-hp. Switching	Feb. 19	Bald.-Lima-Ham.	
	6*	1,500-hp. Rd.-Switch.	Feb. 19	Electro-Motive	
	4*	800-hp. Switching	Feb. 19	Electro-Motive	
	6	1,500-hp. Road	Feb. 5	Electro-Motive	
	10	1,500-hp. Rd.-Switch.	Feb. 5	Electro-Motive	
	5	1,200-hp. Switching	Feb. 5	Electro-Motive	
	2	800-hp. Switching	Feb. 12	Bald.-Lima-Ham.	
	10	2,400-hp. Passenger	Feb. 12	Fairbanks, Morse	
N. O. P. B.	6	2-8-8-2 Freight	Feb. 5	R. R. Shops	
N. Y. N. H. & H.	6	4-unit 6,000-hp. Ft.	Feb. 5	Electro-Motive	
N. & W.	3	1,500-hp. Rd.-Switch.	Feb. 5	Electro-Motive	
N. P.	15	1,600-hp. Rd.-Switch.	Feb. 19	American-G. E.	
Reading	15	1,600-hp. Rd.-Switch.	Feb. 19	Bald.-Lima-Ham.	
Rutland	5	1,600-hp. Rd.-Switch.	Feb. 26	American-G. E.	

\*For the Chicago, St. Paul, Minneapolis & Omaha.

### Freight Cars

A. T. & S. F.	500	70-ton Gondola	Feb. 26	R. R. Shops
A. & W. P.	90	50-ton Box	Feb. 26	Pullman-Standard
C. & I.	400	50-ton Hopper	Feb. 26	Bethlehem Steel
Chattahoochee Valley	10	50-ton Pulpwood	Feb. 26	R. R. Shops
C. & O.	2,500	70-ton Hopper	Feb. 12	Amer. Car & Fdy.
	1,000	50-ton Box	Feb. 12	Pullman-Standard
	200	70-ton Cov. Hopper	Feb. 12	Pullman-Standard
	750	50-ton Box	Feb. 12	General American
	200	70-ton Gondola	Feb. 12	General American
	250	70-ton Flat	Feb. 12	Greenville Steel Car
C. & E. I.	100	50-ton Box	Feb. 26	Amer. Car & Fdy.
C. & I. M.	150	70-ton Gondola	Feb. 26	Pullman-Standard
D. M. & I. R.	1,500	70-ton Ore	Feb. 26	Pullman-Standard
Georgia	110	50-ton Box	Feb. 26	Pullman-Standard
Ford Motor Co.	100	50-ton Hopper	Feb. 26	Pullman-Standard
L. V.	119	70-ton Gondola	Feb. 26	Magor Car
M. D. T.	350	70-ton Gondola	Feb. 12	Bethlehem Steel
R. F. & P.	1,000	40-ton Refrigerator	Feb. 26	Despatch Shops
Norfolk Southern	100	50-ton Box	Feb. 26	Pullman-Standard
N. & W.	150	50-ton Gondola	Feb. 12	Magor Car
Reading	3,000	70-ton Hopper	Feb. 5	R. R. Shops
	500	50-ton Box	Feb. 5	Pullman-Standard
	1,000	30-ton Hopper	Feb. 19	Bethlehem Steel
	1,000	70-ton Gondola	Feb. 19	Bethlehem Steel
W. of Ala.	50	50-ton Gondola	Feb. 26	Pullman-Standard

# MIDWEST SHIPPERS SAVE TIME and COSTS

When They

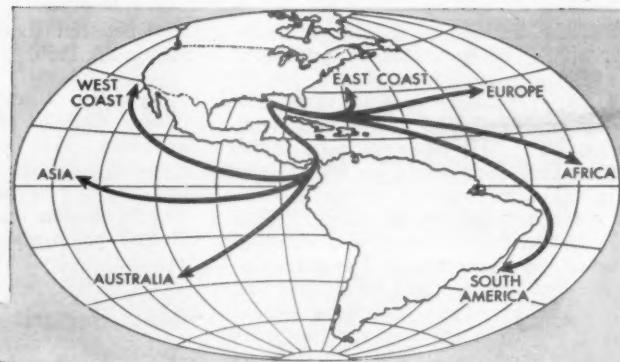


A glance at the map of Mid-America shows why! KCS Dieselized Freight travels the direct route between the Heart of America and the modern, efficient ports of New Orleans, Port Arthur, Baton Rouge, Beaumont and Lake Charles. Here the combination of short route, fast Diesel service and quick terminal handling and delivery means substantial savings for shippers!

J. W. SCOTT  
Vice President-Traffic  
Kansas City, Mo.

For FREIGHT with a DATE  
It's KCS Lines!

And it's KCS 77 for your hurry-up shipments to the Gulf Ports and the South-Southwest—out of Kansas City every night at 8:40.



## LAKE CHARLES

Cuba, London, Montreal, Brazil, Philippine Islands—all figure in the monthly schedule of sailings from The Port of Lake Charles. As one of the South's newest, important ports, Lake Charles is justly proud of its up-to-date port facilities.

Other great Gulf Ports—New Orleans, Port Arthur, Baton Rouge and Beaumont—are featured in this series.

nates the number of shares each officer would be permitted to purchase, as follows: chairman of the board, 20,000; president, 10,000; vice-presidents and assistant to the president, 5,000; and 11 other officers, 2,500 each. The stock would be sold at the higher of two prices, either \$36.125 a share, or the closing price the date the United States Treasury determines the option was granted. The plan also provides that options shall not be transferable. The executives would have the right to purchase the stock up to December 31, 1957, at the rate of 20 per cent per year. In any year that the road fails to earn a net income of \$3.50 a share the option to buy would be revoked for that year.

**Chicago Indianapolis and Louisville—New Stock Trustee**—At a recent meeting of the holders of class B stock trust certificates of this company, John W. Barriger, president of the road, was elected to fill a vacancy on the committee of three trustees of this stock. This post carries with it the responsibility for naming three of the company's directors and matters relating to proposals for sale of the stock of the road, and negotiation of traffic agreements.

**Chicago, Rock Island & Pacific.**—*New Director.*—Harry Darby, chairman of the board of the Darby Corporation, Kansas City, Kan., has been renamed to the Rock Island's board of directors. Mr. Darby fills a vacancy caused by the resignation of William E. Fay, president of the Champion Machinery Company, Joliet, Ill. Mr. Darby was originally elected to the Rock Island board on emergence of the road from trusteeship in January 1948. He resigned on January 1, 1950, to fill out the unexpired senatorial term of the late Clyde Reed upon appointment of the governor of Kansas.

**Chicago, Rock Island & Pacific—Ft. Worth & Denver City.**—*Lease of Burlington-Rock Island.*—Division 4 of the I.C.C. has authorized these roads to lease jointly the B.R.I. lines in Texas for a period of 99 years from January 1, 1951. The new agreement is a continuation "in all substantial respects" of a former lease dating from 1931. (See *Railway Age* of January 15, page 255.) The B.R.I. lines include approximately 211.7 mi. between Waxahachie, Tex., and Houston, plus trackage rights over the Gulf, Colorado & Santa Fe between Houston and Galveston, and a lease of the Galveston Terminal Company.

**Missouri Pacific—Reorganization.**—A total of \$763,763.36 in claims, covering compensation for services and reimbursement for expenses by parties of interest and their counsel, has been approved for payment by Division 4 of the I.C.C. in this proceeding. The claims will be paid out of the debtor's estate. They are for the period gener-

ally between January 8, 1945, and March 27, 1950.

**Seattle Packing Company.**—*Lease.*—Division 4 of the I.C.C. has authorized this company to lease its property used for loading and unloading livestock at Seattle, Wash., to the Seattle Union Stockyards Company. Rental payments will be \$1,000 per month.

### New Securities

**Application** has been filed with the I.C.C. by:

**ILLINOIS CENTRAL.**—To assume liability for \$6,800,000 of series EE equipment trust certificates, proceeds from sale of which will be applied toward paying for equipment that has been delivered to the I. C. since May 31, 1948. Depreciated cost of this equipment, as of April 1, will be \$9,449,874. The equipment includes 60 diesel-electric locomotives, 90 cabooses, and 18 passenger-train cars. The certificates, to be dated April 1, would mature in 20 semiannual installments of \$340,000 each, beginning October 1, 1951. They would be sold on competitive bids, with the interest rate to be set by such bids.

**NORTHERN PACIFIC.**—To assume liability for \$6,900,000 of equipment trust certificates to finance in part 9 diesel-electric locomotives and 850 freight cars costing approximately \$8,719,000:

Description and Builder	Estimated Unit Cost
3 1,500-hp road switching locomotives (Electro-Motive Division, General Motors Corporation)	\$150,270
5 6,000-hp freight locomotives, each consisting of 2 lead units and 2 booster units (Electro-Motive)	165,041 (per unit)
100 70-ton all-steel covered hopper cars (Company Shops)	5,820
500 50-ton steel sheathed box cars (Company Shops)	4,900
250 70-ton all-steel gondola cars (American Car & Foundry Co.)	5,100

The certificates, to be dated March 30, would mature in 15 annual installments of \$460,000 each, beginning March 30, 1952. They would be sold on the basis of competitive bids, with the interest rate to be set by such bids.

Division 4 of the I.C.C. has authorized:

**PITTSBURGH & LAKES ERIE.**—To assume liability for \$5,300,000 of equipment trust certificates to finance in part 10 diesel-electric locomotives and 1,000 freight cars costing approximately \$6,792,000. (See *Railway Age* of February 3, page 78.) The certificates, to be dated March 1, will mature in 10 annual installments of \$530,000 each, beginning March 1, 1952. Division 4's report approved a selling price for the issue of 99,048 with interest at 2 1/4 per cent—the bid of Solomon Bros. & Hutzler and 3 associates—which will make the average annual cost of the proceeds approximately 2.46 per cent. Certificates were reoffered to the public at prices yielding from 1.85 to 2.5 per cent, according to maturity.

### Security Price Averages

	Feb. 27	Last Week	Last Year
Average price of 20 representative railway stocks	57.17	58.41	42.48
Average price of 20 representative railway bonds	99.90	100.30	92.49

### Dividends Declared

**Bangor & Aroostook.**—5% preferred, \$1.25, quarterly, payable April 1 to holders of record March 6.

**Beech Creek.**—50¢, payable April 2 to holders of record March 2.

**Boston & Maine.**—Initial, \$5.58 on new \$5 preferred and \$1 on new common, conditional upon final successful termination of suit by a small minority group of shareholders; \$3.08 on preferred and 50¢ on common payable June 1 to holders of record May 10; \$1.25 on preferred and 25¢ on common payable September 1 and December 1 to holders of record August 10 and November 9.

**Chesapeake & Ohio.**—common, 50¢, quarterly, payable March 20 to holders of record March 1; 3 1/2% convertible preferred, 87 1/2¢, quarterly, payable May 1 to holders of record April 6.

**Denver & Rio Grande Western.**—common, \$3, \$1.50 payable March 15 to holders of record March 7, and \$1.50 payable September 15 to holders of record September 6; preferred, \$5,

payable March 15 to holders of record March 7.

**Illinois Central.**—common, 75¢, quarterly, payable April 2 to holders of record March 7.

**Kansas City Southern.**—common, \$1.25, payable March 15 to holders of record February 28; 4% preferred, \$1, quarterly, payable April 16 to holders of record March 31.

**Minneapolis, St. Paul & Sault Ste. Marie.**—common, \$1, payable March 30 to holders of record March 13.

**Norfolk Southern.**—common, 75¢, quarterly, payable March 15 to holders of record March 1.

**Pittsburgh, Ft. Wayne & Chicago.**—common, \$1.75, quarterly, payable April 2 to holders of record March 9; 7% preferred, \$1.75, quarterly, payable April 3 to holders of record March 9.

**Reading.**—2nd preferred, 50¢, quarterly, payable April 12 to holders of record March 22.

**Union Pacific.**—common, \$1.25, quarterly; 4% preferred, \$1, both payable April 2 to holders of record March 5.

## RAILWAY OFFICERS

### EXECUTIVE

As reported in the *Railway Age* of February 19, **H. A. Cline** has been appointed assistant to vice-president in charge of mail and express traffic of the SOUTHERN SYSTEM at Washington, D. C., effective March 1. Mr. Cline, a native of Washington, was born on April 14, 1897, and entered the service of the Southern as a messenger in the car record office on June 9, 1913, subsequently advancing through clerical and secretarial positions in various departments. On Au-



H. A. Cline

gust 15, 1925, Mr. Cline was promoted to traveling passenger agent at St. Louis, Mo., transferring to Washington on August 1, 1926. He was appointed district passenger agent at Pittsburgh, Pa., on March 1, 1929, later transferring to Washington and Baltimore, Md. He was promoted to assistant general passenger agent at Washington on January 16, 1944, and a year later was appointed general passenger agent, in which capacity he served until his recent appointment.

**Gilbert H. Kern**, whose promotion to assistant to vice-president — operation of the CHICAGO, INDIANAPOLIS & LOUISVILLE, at Lafayette, Ind., was announced in the January 8 *Railway Age* (Continued on page 86)

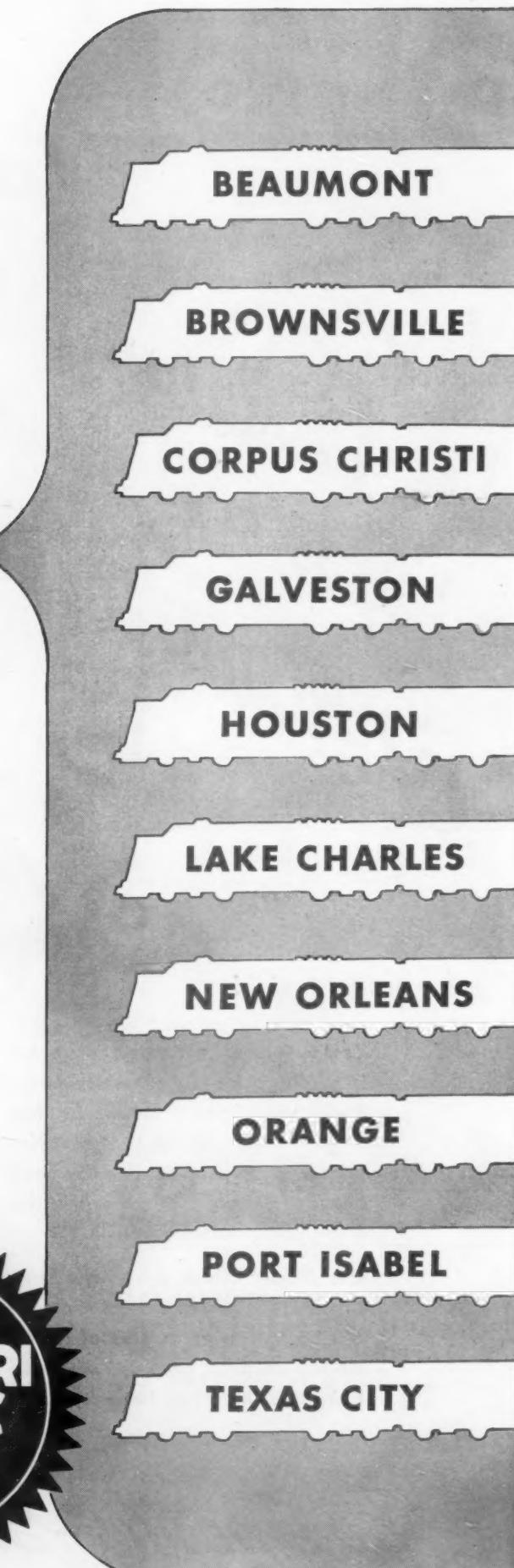
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IMPORT-EXPORT shippers will find MISSOURI PACIFIC ready to move foreign trade freight swiftly and efficiently to and from these ten principal Gulf ports from New Orleans to Brownsville. Modern equipment and dependable schedules over miles of main rail arteries throughout the West-Southwest can expedite your product to world markets.

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*Packaging  
is my  
Specialty!*



*Photo by Josef A. Schneider*

Yes, youngster, a nice package but if you're going to represent Union Pacific you'll have to learn more than that. Your job will be to assist shippers in properly packaging commodities for rail shipment so they'll arrive in the best possible condition.

Our shipper friends know what fancy curves in the way of unusual shipments can be thrown at us. Lots of run-of-the-mill products need special packaging and handling, too—especially

the ones marked "fragile."

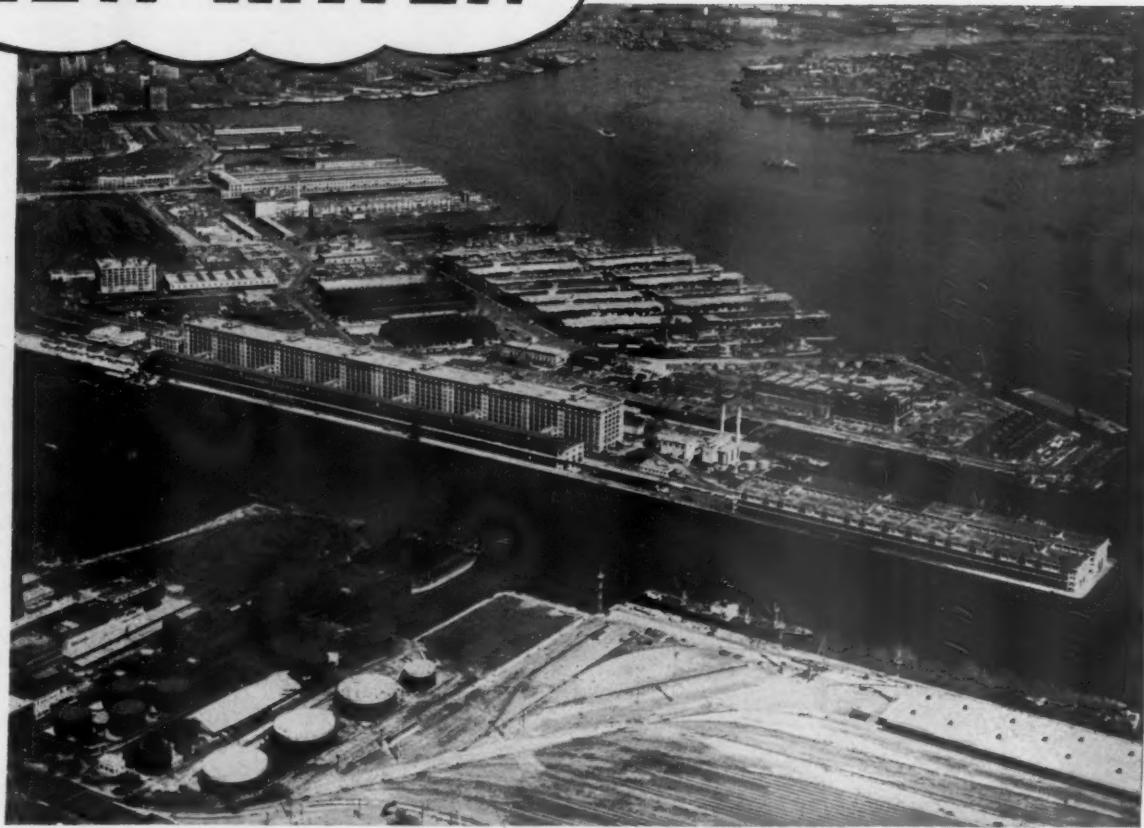
That's why we maintain a staff of "container engineers" to work with you in developing just the right methods of packaging and car loading.

\* \* \*

So, Mister Shipper, here's just one more U. P. service that's yours for the asking. After all, we're as interested as you are in eliminating loss and damage. Have you a packaging headache? Ask us to prescribe a cure.

*Be Specific - Ship "Union Pacific"*

# NEW HAVEN



*Full view of Boston Harbor, showing direct New Haven Railroad connections to piers at Castle Island (foreground), Boston Army Base, and Commonwealth Pier, No. 5.*

## The NEW HAVEN RAILROAD *does more than link industrial* NEW ENGLAND

Through its ocean gateways of  
BOSTON : NEW BEDFORD : FALL RIVER  
PORTSMOUTH : PROVIDENCE  
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**The NEW HAVEN**  
CONNECTS WITH ALL PARTS OF  
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**FOREIGN TRAFFIC DEPARTMENT**

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(Continued from page 82)

was born on March 25, 1895, in Lawrence county, Ind. Mr. Kern entered railroad service in September 1910 as a clerk on the Kankakee division of the New York Central. Later he served as telegrapher and agent on the Central at various points, joining the Monon in September 1913 in a similar capacity. In 1917 he was made dispatcher at Lafayette, and in September 1945 was advanced to chief dispatcher. Mr. Kern became trainmaster in January 1947, in which position he was serving prior to his promotion.

**Spencer M. Percival**, superintendent of the DANVILLE & WESTERN at Danville, Va., has been appointed assistant vice-president of SOUTHERN SYSTEM subsidiary lines, including the Blue Ridge; the Carolina & Northwestern; the High Point, Randleman, Asheboro & Southern; the Yadkin, and the Danville & Western. Mr. Percival, whose headquarters will remain at Danville, was born on August 11, 1903, at Rock Hill, S. C., and received his higher education at Clemson College and George Washington University. He entered the service of the Southern in April 1927 as a rodman, serving later in the maintenance of way department as a transitman and junior engineer. In April 1929 he was appointed assistant engineer (subsidiary lines) at Washington and on August 1, 1935, was promoted to assistant superintendent of the Yadkin and the H.P.R.A. & S. Mr. Percival was furloughed for service with the United States Army on May 6, 1943, and later served with the Southern-sponsored 727th Railway Operating Battalion and Headquarters, 707th Railway Grand Division, in the European Theater of Operations. He attained the rank of captain and received his honorable discharge in December 1945. Returning to the Southern on December 16, 1945, in his former position, Mr. Percival was promoted to superintendent of the Yadkin and the H.P.R.A. & S. at Salisbury, N. C. In June 1949 he became chief engineer and superintendent of the Atlantic & Danville at Lawrenceville, Va., and on February 1, 1951, was appointed superintendent of the Danville & Western at Danville.

**Alvin D. Dugan**, assistant vice-president of operations and maintenance of the NEW YORK CENTRAL SYSTEM at New York retired on February 28, after nearly 50 years of service with that road.

**C. P. King**, vice-president, personnel, and **A. N. Laret**, vice-president, purchases and stores of the ST. LOUIS-SAN FRANCISCO, have been appointed also to similar positions on the ALABAMA, TENNESSEE & NORTHERN, with headquarters remaining at St. Louis, Mo.

**R. C. Johnston**, assistant vice-president of personnel of the CANADIAN NATIONAL SYSTEM at Montreal,

Que., has been promoted to assistant vice-president of operation, with particular duties relating to organization and special matters. **W. M. Armstrong**, general manager of telegraphs at Toronto, Ont., succeeds Mr. Johnston as assistant vice-president of personnel.

#### FINANCIAL, LEGAL & ACCOUNTING

**Roger S. B. Hartz**, assistant to the vice-president—finance of the BALTIMORE & OHIO, has been appointed secretary of the company, with headquarters as before at Baltimore, Md., succeeding **Charles A. Rausch**, who has retired after almost half a century of service. Mr. Hartz was born on September 27, 1888, at Palmyra, Pa., and was graduated from Lebanon Valley College in 1908 with a Bachelor of Arts degree. After teaching in high school for several years, he entered the College of Civil Engineering of Cornell University, from which he was graduated in 1913. Mr. Hartz served as a commissioned officer in the United States Regular Army, with four years of service on the Mexican border and one year in Europe during World War I. He resigned his commission as lieutenant colonel in 1919, and for several years thereafter was a construction engineer in Cuba and in Baltimore. In

to the chairman of the board. He also acted as assistant secretary of the company. Mr. Rausch was elected secretary of the company on January 1, 1945.

**Luther L. Taylor**, assistant to general auditor of the ATCHISON, TOPEKA & SANTA FE at Chicago, has been advanced to assistant general auditor. Born at Belton, Tex., August 30, 1892, Mr. Taylor attended public schools at Corpus Christi, Tex., and San Antonio. Following graduation from West Texas Military Academy he held various positions at San Antonio and Waco, Tex. His first position with the Santa Fe was in the superintendent's office at Temple, Tex. From 1917 to 1920 he was employed as additions and betterments clerk in the superintendent's office at Cleburne, Tex., except between June 1917 and August 1919, when he served in the U. S. Army as a lieutenant of field artillery. He was made traveling accountant for the Santa Fe at Galveston, Tex., in 1920, and subsequently, while employed as head clerk in the auditor's office, attended law school and was admitted to the Texas bar. Mr. Taylor became senior clerk in the general auditor's office at Chicago in 1928, and was appointed tax accountant in 1937, being made assistant to general auditor in August 1943.

**Merle W. White**, general claim agent of the MINNEAPOLIS & ST. LOUIS at Minneapolis, Minn., has been given supervision over the freight claim department of the road, in addition to his previous duties as head of the personal injuries and allied claims division. **W. C. Olander**, chief clerk in the freight claim department, has been promoted to freight claim agent, succeeding the late **Irving H. Buckle**, whose death was reported in the February 12 *Railway Age*.

**Alfred H. Hogan**, regional auditor of the CANADIAN NATIONAL at Toronto, Ont., has been appointed auditor of disbursements of the system.

**Charles I. Hopkins, Jr.**, has been appointed an attorney in the law department of the ILLINOIS CENTRAL.

**David V. Jackson**, special auditor of the CANADIAN NATIONAL, has been appointed auditor of overcharge claims at Montreal, Que., succeeding **J. A. Adams**, who has retired after 48 years of service.

**Fred M. Buechner**, conveyancer in the law department of the DELAWARE, LACKAWANNA & WESTERN, has been promoted to general land and tax agent, succeeding **W. N. Eastburn**, real estate and tax agent at Hoboken, N. J., who has retired under the pension rules of the company. Mr. Buechner was born at Irvington, N. J., attended grade schools there and at Allendale and was graduated from Ramsey (N.J.) high school. He entered the service of the Erie on July 1,



Roger S. B. Hartz

1922 he became a vice-president of the Perkins Oil Company of Memphis, Tenn. The following year he joined the B.&O. as a special representative in the office of the senior vice-president. He was named assistant to the senior vice-president in 1941 and became assistant to the vice-president—finance in 1942.

Mr. Rausch was born on January 3, 1886, at Baltimore and entered the service of the B.&O. on December 27, 1901, as a clerk in the accounting department. In 1911 he became clerk-stenographer in the office of the president, and the following year was appointed secretary to the president. In 1936 Mr. Rausch was appointed assistant to the president and five years later his title was changed to assistant



## PROGRESS ALL THE WAY

It has been said, and many times proved, that "a *business* is but the lengthened shadow of a *man*." In that same spirit the new, modernized, completely dieselized MONON is the lengthened shadow of a *man-agement* that believes in *action*.

The MONON will never be a *large* railroad but it will always strive to be a dependable servant for shippers throughout the nation, particularly when fast, dependable freight schedules are required . . . ready to carry its share of the "preparedness" load, while serving civilian needs with transportation of unimpaired quality. There are 22 MONON on-and off-line agencies serving the shippers of the nation. Contact the one in your vicinity. A single trial will convince you that MONON means *business*.



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**Bazookas and bayonets** . . . tanks and torpedoes . . . rifles and rocket shells . . . coal and steel and food. These are just a few of the thousands of things rolling today on the nation's railroads as America rearms.

For your railroads are the biggest "assembly line" the world has ever known! With nearly 400,000 miles of steel track, they join farm and mine with furnace and factory, camp and port. From raw materials, through every stage of manufacture, the things which America must have to live and to grow stronger are assembled and distributed by rail—for only railroads have the carrying capacity and the operating economy to perform so tremendous a task.

In national defense as in peacetime commerce, the country's productive strength is made *effective* by the world's greatest transportation system.

And, as the national defense program continues to grow, the railroads will be devoting even more time . . . more space . . . more effort to the country's biggest job: effective rearmament to keep the nation strong...to keep it free.

**ASSOCIATION OF  
AMERICAN RAILROADS**  
WASHINGTON 6, D. C.

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**THE RAILROAD HOUR**  
every Monday evening on NBC.

1945, as district land and tax agent at New York and joined the Lackawanna on May 1, 1946, as conveyancer.

Mr. Eastburn was born at Langhorne, Pa., and was educated in the grade and high schools of Yardley, Pa., and at Rider Business College, Trenton, N. J. He entered the service of the Lackawanna in April 1900 as secretary to the real estate and tax agent, becoming head of the department in 1933.

**Herbert H. Siddall** has been elected general auditor of the **CHICAGO, ROCK ISLAND & PACIFIC**, with headquarters at Chicago. He has been acting general auditor since December 1, when he assumed the duties of **A. J. Messersmith**, who was granted a leave of absence. Mr. Messersmith retired on January 31. Starting service with the Rock Island in 1906 as a clerk at Chickasha, Okla., Mr. Messersmith subsequently held the positions of district auditor, traveling accountant and chief clerk at El Reno, Okla., Fort Worth, Tex., and Chicago. In 1928 he became auditor of freight claims, and in 1948 was appointed assistant general auditor at Chicago. He was advanced to general auditor in 1949.

## OPERATING

As reported in the January 29 *Railway Age*, **Arthur R. Miller**, superintendent of the **MISSOURI PACIFIC**'s St. Louis terminal division, has retired. Mr. Miller was born at Chester, Ill., January 20, 1884, and began his railroad career with the Wabash, Chester & Western (now part of the M.P.'s Illinois division) as a hostler. After serving the W. C. & W. for three years in and around Chester as fireman and brakeman, in February, 1905, he joined the M. P. as a brakeman on the Illinois division. Two years later he was advanced to conductor, and in 1909 became a switchman on the St. Louis terminal division. He was made yardmaster in 1911, and later was promoted to general yardmaster, being further advanced in 1922 to trainmaster. From August through October, 1924, he served as trainmaster on the Memphis division. Subsequently Mr. Miller returned to his former position as trainmaster at St. Louis, in which capacity he remained until March, 1931, except for a short period from February to April, 1929, when he served as acting superintendent for the St. Louis terminal division. He came superintendent of that division in March, 1931.

**J. R. White**, chief of commercial operations of the **CANADIAN NATIONAL**, has been appointed general manager of communications, by which name the telegraph department will be known from now on.

The **GREEN BAY & WESTERN** has announced the following changes in its operating department: **E. V. John**—(Continued on page 94)

# 200 MILES of NEW FREIGHT CARS



## **Biggest Freight Car Order in Railroad History!**

**Twenty Thousand New All-Steel Freight Cars...**  
enough to form one solid train extending from New York to Baltimore and beyond!

Just what industry is calling for as production speeds up everywhere . . . 8,250 box cars, 11,500 gondolas, 250 flat cars . . . an increase of 5,000 cars since our last report.

Several thousands of these new cars are already in service. Eleven thousand will have been completed and put to work by March 31. The balance will come

along at an average of a thousand a month. Freight car builders say this is by far the largest car order ever placed by one railroad. These 20,000 cars will cost \$114 million, making a total of \$133 million the Pennsylvania Railroad will have spent for newer and better freight cars since January, 1950.

This order to car builders will expand the Pennsylvania Railroad's vast freight fleet to keep pace with the growing demand for railroad transportation by industry and defense.



## **PENNSYLVANIA RAILROAD**



*Go by Train . . . Safety—with Speed and Comfort*

**\$1,500 LESS!**



The new General Motors Diesel 800 H.P. switching locomotive is priced \$11,500 below switchers in the 1000 to 1200 H.P. class.

Yet, with its *full-rated* 800 horsepower and 115 tons on drivers, this new GM Diesel locomotive will haul as much tonnage and perform just as satisfactorily in conventional yard switching as other switchers rated at 1000 H.P.

This new unit costs less to buy—less to operate and maintain—and its axle loading of 57,000 pounds (with options of 52,000 or 62,000 pounds) adapts it to many branch line operations.

GM DIESELS ARE THE BEST RAILROAD SECURITY

## ELECTRO-MOTIVE DIVISION

GENERAL MOTORS



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*Home of the Diesel Locomotive*

In Canada: GENERAL MOTORS DIESEL, LTD.,  
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with "

Here's why  
**"RIBBONRAIL"**  
is important news

• The New Orleans Public Belt Railroad recently installed continuous rail on the double-track 4½-mi. long Huey P. Long bridge over the Mississippi river at New Orleans.

portation, one of  
was taken out to the  
installed at the be-  
work. The 39-ft. ra-

**Welded Rail Economy  
Weighed by Carriers**

By Edward Kandlik

Railroad executives are eyeing welded continuous rail as a possible source of major future economies in track maintenance.

About 100 executives of the American Railway Assn. convention in City, Ind., last week journeyed to Chicago to study an of continuous rail being by the Chicago South Bend Railroad.

The South Shore made two installatio

attending about 36 standard rail foot sections. Laying such a trick. A 1,400 foot rail can be lined up the flat

Officials View  
South Shore's  
Rail Weld Job

**RF&P Ending  
Click-Clack  
Song of Rails**

By WILLIAM B. FOSTER, JR.

Northbound passengers of the RF&P on and after June 23 will needn't listen for the traditional clickety-clack of the wheels on the rails between milepost 6 and milepost 8—there won't be any. mile section was ever this two-mile stretch of Michigan City paves

than 100 railway officials ay watched a Chicago, bore, and South Bend railw in the early stages of

welding project which will

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ore officials explained

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# New Books on Railroading

## MILEPOSTS ON THE PRAIRIE The Story of the Minneapolis & St. Louis Railway

By Frank P. Donovan, Jr.



"The Louie" for many years was a standard joke among railroad men. Within recent years, however, this bridge road between Peoria and the Twin Cities has been reconditioned and is now considered one of the best operated Class I properties in the country. How this was achieved is clearly described and illustrated in this institutional history.

352 pages, 64 photographs, charts and endpaper maps, index, \$4.50

## The Elements of TRANSPORTATION ECONOMICS

By Dr. G. Lloyd Wilson



The fundamental principles of economics as applied to transportation are clearly explained by Professor Wilson. Railroad patterns of organization, principal departments and functions of chief executives are described with the aid of charts. Students of transportation, within and outside the industry, will find in it many helpful bibliographies for further studies.

178 pages, 8 charts, 2 tables, index, \$2.95

## U. S. RAILROADS MAP

This new wall map shows classifications in accordance with traffic capacity and relative importance of Class I and some smaller railroads. Centralized traffic control territory and lines equipped with automatic signals are shown in color. Traffic department men will find this flow map particularly helpful.

44 x 30 inches, 3 colors, mailed rolled in tube, \$2.50

## RAILROADS OF NEW YORK



A pictorial survey with introductory text of the railroad and rapid transit network of New York. Official fold-in 4-color maps of the Port of New York District and of the Subway System. Beautifully printed and bound. An ideal gift book.

144 pages, 116 large photographs, 2 maps, 11 x 8 1/2, \$4.00

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The story of the building of the Central Pacific and Union Pacific Railroads from Omaha to Sacramento in the sixties. The author was a leading civil engineer of San Francisco. Illustrated with authentic photographs and special maps.

360 pages, 62 photographs, 4 maps, bibliography, index, 6 x 9, \$5.00

## ROUTING AND MISROUTING FREIGHT

By Glenn L. Shinn

Attorney-Examiner,  
Interstate Commerce Commission



Misrouting problems are simplified and principles explained in non-technical language. Rights, obligations and liabilities of railroads and shippers are classified. Reconsigned shipments, embargoes, kinds of damages and liabilities as between railroads are given special treatment.

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By Glenn L. Shinn

A convenient reference for the correct interpretation of freight tariffs and a comprehensive guide for any student of the subject. Presents clearly and concisely the rules and principles of tariff interpretation which govern the determination of freight rates under Section 6, Paragraph 7, of the Interstate Commerce Act.

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The new Third Edition contains 4,000 terms, phrases and abbreviations used in all branches of transportation. Railroad, motor truck, express and parcel post, marine and air transport terms are clearly defined. Includes digests of laws, rules and regulations for transportation.

320 pages, 4 1/2 x 6, \$3.75

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The Twelfth Edition describes the business careers of more than 6,100 of the leaders in the railroad industry. Besides railroad officials there are included railway supply company officials, members of federal and state regulatory commissions, Interstate Commerce Commission practitioners, professors of transportation, editors of railroad magazines, authors of authoritative books on railroading and railway labor union officials. More than 2,000 of the names are new.

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Here's real peace of mind! He knows that a stray spark or short circuit can't cause costly down time and heavy loss of equipment. His diesel locomotives are fully protected . . . inside . . . outside . . . underneath . . . with modern, approved C-O-TWO Railroad Fire Protection Equipment.

When you have complete, fast-acting C-O-TWO fire protection, the first trace of fire is instantly detected and then extinguished in seconds. Any or all of the following equipment can be easily installed in diesel locomotives . . . whether under construction or already in operation on the line:

- THERMOSTAT FIRE ALARM SYSTEM for detecting fire in the engine compartments.
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- BUILT-IN CARBON DIOXIDE TYPE FIRE EXTINGUISHING SYSTEM for extinguishing fire inside the locomotive.
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- TWO 15 OR 20 POUND SIZE SQUEEZ-GRIP CARBON DIOXIDE TYPE HAND PORTABLE FIRE EXTINGUISHERS, plus ONE 4 POUND SIZE DRY CHEMICAL TYPE FIRE EXTINGUISHER for extinguishing fire during the incipient stage.

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#### MANUFACTURERS OF APPROVED FIRE PROTECTION EQUIPMENT

Squeez-Grip Carbon Dioxide Type Fire Extinguishers • Dry Chemical Type Fire Extinguishers  
Built-In High Pressure and Low Pressure Carbon Dioxide Type Fire Extinguishing Systems  
Built-In Smoke and Heat Fire Detecting Systems

(Continued from page 88)  
son, general superintendent transportation — mechanical, with headquarters at Green Bay, Wis., appointed general manager; **H. Weldon McGee**, superintendent at Green Bay, appointed assistant general manager; **L. J. Knutson** appointed superintendent; **L. J. Van Dreese** appointed assistant superintendent, and **R. H. Anunson** appointed trainmaster.

**Robert C. White**, chief operating officer of the MISSOURI PACIFIC, with headquarters at St. Louis, Mo., has retired. Mr. White was born at Bertrand, Mo., February 8, 1881, and was educated at Southeast Missouri State College, the University of Missouri and the United States Military Academy at West Point. Starting his career on the M. P. in May 1905 as an assistant on an engineering party engaged in construction work, he later served successively as assistant engineer at Sedalia, Mo., roadmaster at Coffeyville, Kan., Osawatomie and Batesville, Ark., acting division engineer at Van Buren, Ark., division engineer at Wynne, Ark., and Little Rock and assistant engineer at Wynne. Subsequently Mr. White was appointed



Robert C. White

general roadmaster of the Memphis division and following assignments as district engineer of the Southern district at Little Rock and as superintendent at Wynne, he was furloughed to the Army in 1917 and placed in charge of construction at Camp Pike, Ark. On his return to the M. P. he resumed his former post as superintendent and in 1918 was transferred to the St. Louis general office as assistant chief engineer, remaining in that position until early in 1920, when he was appointed general superintendent of the Eastern district. Slightly more than four years later he returned to the engineering department as chief engineer, maintenance of way, and in 1925 was made assistant general manager. Mr. White became chief operating officer in October 1941.

**James G. Metcalfe**, superintendent of transportation for the LOUISVILLE & NASHVILLE at Louisville, Ky.,

has been appointed assistant general manager. Succeeding Mr. Metcalfe is **T. D. Williams**, assistant superintendent of transportation at Louisville, who is in turn succeeded by **Jack Small**, assistant to the general manager at that point. **Walter S. Moore**, superintendent of the Louisville division, has retired. He is succeeded by **W. G. McGowan**, assistant superintendent. Mr. Moore is a native of Nashville, Tenn., and a graduate of Vanderbilt University's School of Engineering. Following his graduation he joined the L. & N.'s engineering force on the Memphis Line in 1907. He then served in various capacities in the roadway department until 1913, when he was made engineer—maintenance of way on the old Louisville & Atlantic line (now part of the L. & N.'s Eastern Kentucky division) which had just been purchased by the L. & N. Subsequently, he was transferred to the former Louisville, Henderson & St. Louis with the same title, and when the L. & N. formally acquired this road in 1929 he was appointed roadmaster at Owensboro, Ky. In 1931 Mr. Moore was transferred to the Louisville terminals and in August of the same year was made division engineer of the Louisville division. He was advanced to acting superintendent of the same division in 1945, and after serving three months in that capacity, in July of that year he became superintendent.

#### TRAFFIC

**Frank P. Herbert**, general agent, passenger department, of the **GREAT NORTHERN** at Tacoma, Wash., has retired after 41 years of service with that road. He is succeeded by **Paul Meyers**, traveling passenger agent at Spokane, Wash.

**Frank K. Corlett**, division freight agent of the **ERIE** at Elmira, N. Y., has been transferred to Jersey City, N. J., succeeding **James C. Vreeland**, who retired on February 28, after more than 50 years of continuous service. **Herbert C. Well**, division freight agent at Rochester, N. Y., has been transferred to Elmira, to succeed Mr. Corlett. **Kenneth O. Hemming** has been appointed general agent at Peoria, Ill., succeeding **Harold J. Spindler**, who has been appointed division freight agent at Rochester.

**J. J. Trainor**, city passenger agent of the **CANADIAN PACIFIC** at Pittsburgh, Pa., has been appointed general agent at St. Louis, Mo., succeeding **Forest Hardy**, who has been transferred to Detroit, Mich.

**John V. Flagg**, general passenger agent for the **ST. LOUIS-SAN FRANCISCO** at Birmingham, Ala., has been appointed to the newly-created post of general agent at Washington, D. C.

**W. J. Nolan**, assistant general freight agent of the **DELAWARE, LACKA-**



See our new catalog for complete information. Get it from your **WILLSON** distributor or write direct to **WILLSON PRODUCTS, INC., 241 Washington Street, Reading, Pa.**

You can depend on **WILLSON** for protection against welding eye hazards because of the 100% tested quality of **WILLSON-Weld** filter glass.

Before the **WW** trade mark of **WILLSON** quality is etched on a filter lens, it has been tested for filtering out dangerous rays, graded for shade, inspected for correct thickness and diameter, optical quality, and visible flaws and scratches. The lens meets Federal Specifications backed by the **WILLSON** reputation for quality and integrity.

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announces  
a NEW  
PLANT

WANNA & WESTERN at Chicago, has been promoted to assistant freight traffic manager at New York, succeeding **George Herbert**, who retired on February 28 in accordance with the company's pension plan. **C. R. Harts-horn**, assistant general freight agent, has been promoted to assistant western traffic manager, with headquarters as before at Chicago. **D. L. Norton**, general agent at Boston, has been promoted to general freight agent at Chicago. **L. M. Blum**, traffic representative at Chicago, has been appointed division freight agent at Scranton, Pa., succeeding **E. C. Ennis**, who succeeds Mr. Norton as general agent at Boston.

Mr. Nolan entered railroad service with the Baltimore & Ohio in its freight traffic department at Cincinnati, Ohio, and joined the Lackawanna in 1915 as chief clerk of the Lackawanna Fast Freight Line at Cincinnati. After service in the United States Army during World War I, Mr. Nolan returned to the Lackawanna as chief clerk to the commercial agent at Cincinnati. He became freight representative in February 1921, and eight years later was promoted to commercial agent at Indianapolis, Ind. In August 1938 he returned to Cincinnati as general agent and in June 1942 transferred to Boston, Mass. He was appointed assistant general freight agent at Chicago in March 1949.

Mr. Herbert was born near Birmingham, England, and joined the Lackawanna on September 1, 1907, as a stenographer. He advanced to secretary, chief clerk to the freight traffic manager and traveling freight agent at New Haven, Conn., successively. Furloughed during World War I, Mr. Herbert joined the staff of the French High Commission, in charge of assembling and dispatching supplies purchased in this country by the French government. Mr. Herbert returned to the Lackawanna on February 15, 1921 and advanced to assistant to vice-president of traffic. In July 1934 he was promoted to assistant freight traffic manager, the position he held until his retirement.

#### MECHANICAL

**H. S. McTeer**, locomotive foreman of the CANADIAN NATIONAL at Limoilou, Que., has been appointed superintendent of motive power and car equipment of the Quebec district at Quebec, Que., succeeding **Frank Bittner**, who has retired. Mr. Bittner was born at Pittsburgh, Pa., and entered railroad service in 1904 as machinist apprentice. From October 1908 to June 1917 he served as machinist at various points with the Quebec, Montreal & Southern (now C.N.), later serving as erecting shop foreman, fitter, locomotive fireman and machine shop foreman, with the same road. He was appointed assistant foreman in October 1929; night locomotive foreman at Jonquiere, Que., in 1930; locomotive and

car foreman at Taschereau, Que., in April 1937; locomotive foreman at Limoilou in 1941 and superintendent motive power and car equipment of the Quebec district in August 1943, all with the C.N.

**C. E. Bloom**, master mechanic of the CHICAGO, BURLINGTON & QUINCY's McCook division at McCook, Neb., has been transferred in that capacity to the Lincoln-Omaha-Wymore divisions, with headquarters at Lincoln, Neb., succeeding **O. M. Hoenshell**, who is retiring after 52 years of service. Transferred to succeed Mr. Bloom is **B. F. Meligan**, master mechanic of the Casper-Sheridan divisions, at Casper, Wyo., who is in turn succeeded by **H. F. Roesch**, assistant master mechanic of that division, at Sheridan, Wyo. **J. L. Shafer**, general foreman at Greybull, Wyo., replaces Mr. Roesch.

#### PURCHASES & STORES

**Harold L. Griep**, who has been promoted to assistant purchasing agent of the MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE, as announced in the February 12 *Railway Age*, has spent his entire railroad career with the Soo Line's purchasing department, having started with that road in April 1924. In 1942 he was advanced to assistant to purchasing agent, from which post he was recently promoted.

#### ENGINEERING AND SIGNALING

**Olive W. Dennis**, research engineer of the BALTIMORE & OHIO at Baltimore, Md., retired on February 28. Miss Dennis was born at Thurlow, Pa., and was graduated from Goucher College (A.B. 1908) and Columbia University (M.A. 1909). She taught mathematics at McKinley Manual Training School, Washington, D. C., for 10 years, studying during summer vacations at Harvard and the University of Wisconsin. During 1919-1920 Miss Dennis earned a civil engineering degree from Cornell University—the second woman to graduate in engineering in Cornell's history. She entered railroad service in 1920 as a draftsman in the bridge engineering department of the B.&O. and one year later was appointed engineer of service, reporting directly to the president. In 1946 she became research engineer. She was the first woman member of the American Railway Engineering Association and has been for many years a member of its Committee on Economics of Railway Location and Operation. During World War II Miss Dennis was an engineering consultant for the Division of Railroad Transportation of the Office of Defense Transportation. She prepared, in conjunction with Miss Dorothy Sells, a study entitled "Survey of Jobs Suitable for Women on Railroads." Miss Dennis is also the editor of "Railroad 'Rithmetic," two

volumes of supplementary arithmetic problems for use in schools. She holds a patent for a window ventilator for railroad cars, and another for design of the B&O's "Blue China" dinnerware. As research engineer, Miss Dennis' job has been to study and recommend improvements in passenger service and equipment, and to make studies concerning efficiency and economy in railway operations. She is responsible for the interior design and furnishings of many B&O passenger cars.

**J. C. Hill**, general superintendent maintenance of way of the GREEN BAY & WESTERN and the KEWAUNEE, GREEN BAY & WESTERN, with headquarters at Green Bay, Wis., has been appointed engineer maintenance of way.

**C. S. Colvin**, division engineer terminals of the INTERNATIONAL-GREAT NORTHERN, has been appointed acting assistant engineer structures of the MISSOURI PACIFIC LINES, with headquarters as before at Houston, Tex. He succeeds **R. E. Caudle**, who has been granted a furlough on account of ill health.

#### SPECIAL

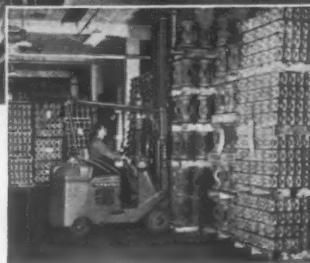
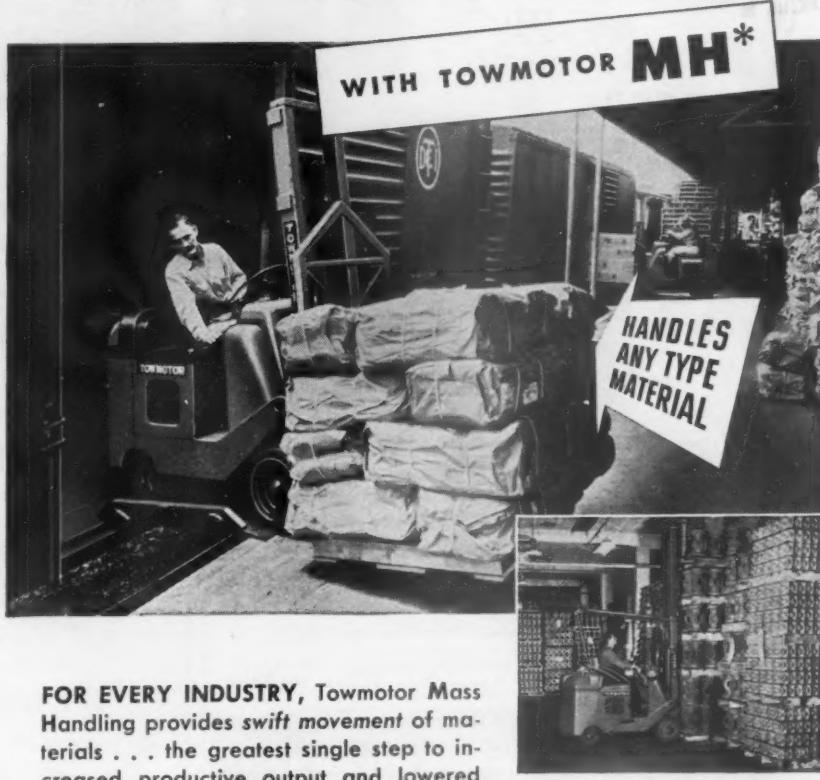
As reported in the *Railway Age* of February 19, **David R. George** has been appointed publicity director of the LONG ISLAND at Jamaica, N. Y. Mr. George was born on March 15, 1913, at Geneva, Ill., where he attended public schools and Community high school. After attending the University of Wisconsin, Mr. George served for 10 years on the editorial staff of the Brooklyn, N. Y., Eagle as reporter, rewrite man, special writ-



David R. George

er, Long Island editor, radio commentator and editor of the Eagle Magazine. He joined the Long Island on October 1, 1942, as publicity representative at Jamaica and in July, 1943, founded the "Long Island Railroader," employee magazine, of which he will continue as editor. Mr. George has contributed articles and short stories to national magazines and is the author of one published novel.

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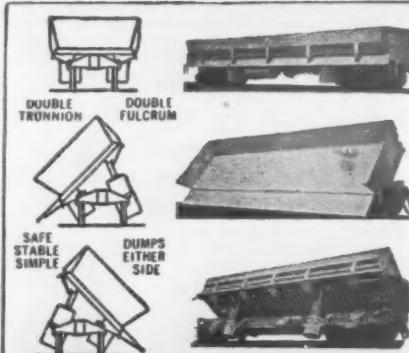
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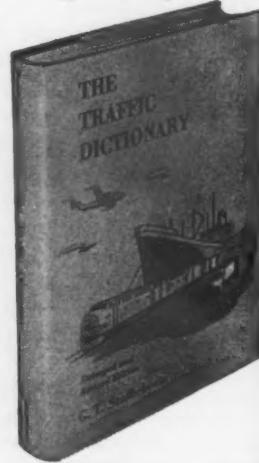
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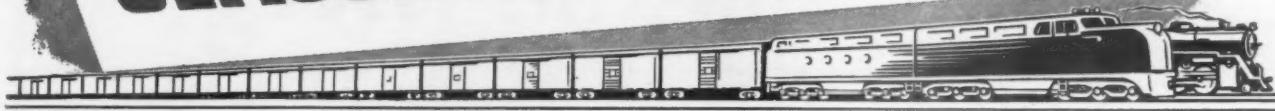
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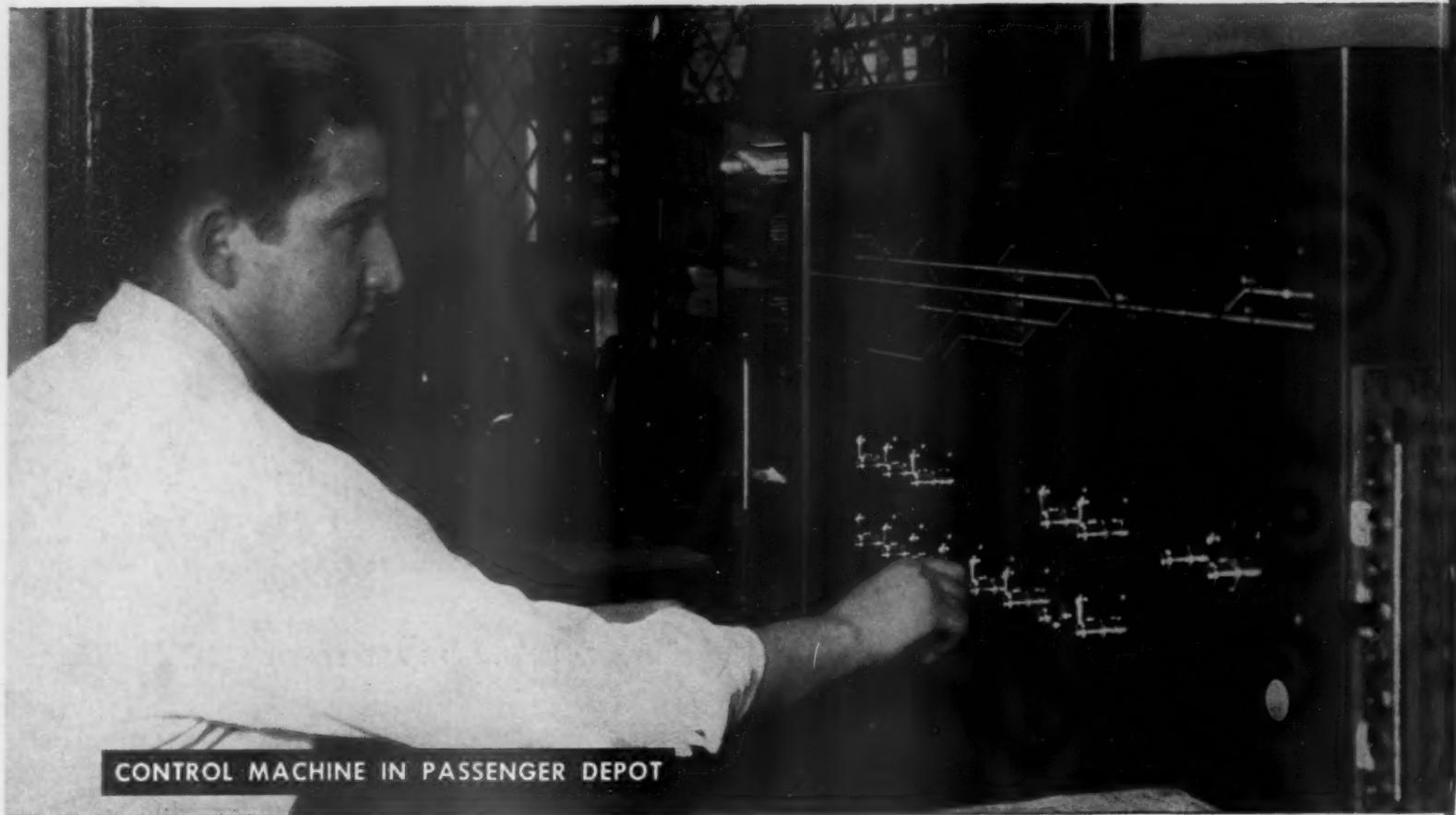
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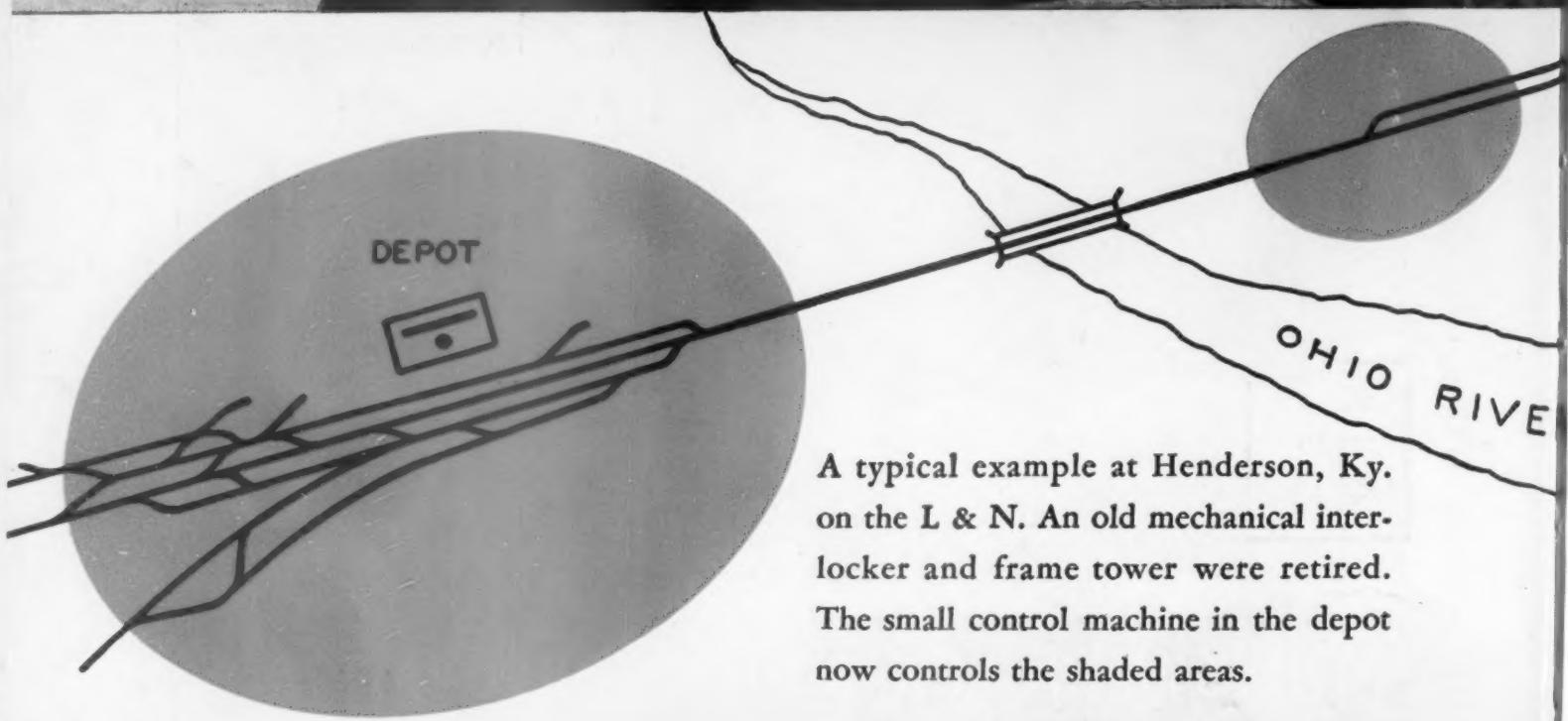
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